Yorks

XII. 1900.

WEST RIDING COUNTY COUNCIL.

TWELFTH

ANNUAL REPORT

OF THE

County Medical Officer,

1900,

Including an Abstract of the Annual Reports of the Medical
Officers of Health for the Sanitary Districts
within the Administrative County.

Printed by Order of the West Riding Sanitary Committee,
9th September, 1901.

WAKEFIELD
W. H. MILNES, RADCLIFFE PRINTING WORKS.

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WEST RIDING of the COUNTY of YORK

MEDICAL OFFICER'S DEPARTMENT,
COUNTY HALL,
WAKEFIELD.

10th October, 1901

My Dear Sir,

Herewith I have pleasure in sending you a print of the Twelfth Annual Report of the County Medical Officer, for the year 1900. As in former years, it includes an Abstract of the 164 Reports of the various Local Medical Officers, along with statistical and other information which I trust may be of service to you.

I have taken the opportunity of placing on record the chief requirements of the Local Government Board regarding Annual Reports (page 13); also the Suggestions of the West Riding Sanitary Committee as to Cowshed Administration (page 71); and a precis of the Interim Report of the Royal Commission on Sewage Disposal (page 75).

In addition, there are the two following important matters, not set out in the report, but which in the opinion of the West Riding Sanitary Committee deserve serious attention at this period :—*FIRST,* the necessity for maintaining (until the findings of the newly appointed Royal Commission are issued) a strict control over the milk and meat supplies, in spite of certain recent statements tending to minimise the danger arising from tuberculous food. *SECOND,* the necessity for extreme care in dealing with the urine in cases of Enteric Fever, having regard to its highly infectious character, as recently proved in many cases.

With regard to these two matters, I should like to draw your attention to the Memoranda printed on the fly-leaf hereof.

I am,
Yours faithfully,
James Robt Kaye

I. Tuberculosis. At the recent Congress held in London, Professor Koch called in question the correctness of the view that this disease can be transmitted from animals to man. The Local Government board subsequently, on the 6th September, 1901, sent out to all the Sanitary Authorities of the Kingdom, an important circular, from which the following is an extract :—

"The views expressed by Professor Koch on this subject have not received the general "assent of scientific men; but having regard to the great importance of the matter, "His Majesty's Government have thought it right to accede to a request made by the "Congress that there should be an inquiry with respect to it. . . . The Board are "desirous, however, of impressing upon the Local Authorities concerned that, pending the "investigations and report of the Royal Commission, there should be no relaxation on their "part or on that of their officers in taking the proper measures for dealing with milk from "tuberculous cows and with tuberculous meat which may be intended for the food of man. "It is, in the opinion of the Board, of much importance that these measures should "continue to be taken, and they rely on this being done."

II. Enteric Fever.—Urine. Typhoid bacilli are found in the urine of at least 25 per cent. of Enteric Fever cases; often in enormous numbers. They generally occur in the later stages of the disease, and may persist throughout convalescence and for a variable period after. Hence it is highly important not only that the greatest care should be taken with the urine during the course of the disease, but that the patient should not be declared free from infection until a bacteriological examination of the urine has shown it to be free from Typhoid bacilli. Outfits have been supplied to the Medical Officers of Health for the collection of urine for such examinations, but it is necessary, that a sample of blood for the Widal serum reaction should accompany the specimen, unless such a sample has been received at the Laboratory and reported on at some previous date, when a reference to the Laboratory number of the report should be made on the form accompanying the urine.

J. R. K.,

County Hall, Wakefield.

10-10-01.

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NOTE.—The Roman numerals refer to the Tables folded in at the end.

SUMMARY shewing the principal general items of the Vital Statistics, etc., for 1900, contained in this Report.

Area of the Administrative County	1,565,501 acres
Population, estimated to middle of 1900 ...	1,451,991 persons
Number of Sanitary Districts (1900) ...	134 Urban, 29 Rural = 163

	Year 1900.		Average of previous five years.
Birth Rate	**28·9**	...	30·1
Death Rate	**18·3**	...	17·5
Zymotic Death Rate	**2·17**	...	2·04
Phthisis Death Rate	**1·14**	...	1·31
Respiratory Death Rate	**3·23**	...	3·24
Infantile Mortality, *i.e.* Number of deaths under 1 year per 1000 births	**160**	...	156

PART I.

SUMMARY OF THE WORK OF THE COUNTY MEDICAL OFFICER'S DEPARTMENT.

In compliance with the original instructions to the County Medical Officer, it is my duty to preface this (the twelfth) Annual Abstract with a short account of the work of the Department during 1900. I propose to deal with this introductory part in a very general manner, as, owing to the continual growth of the work, it is increasingly difficult to give a detailed account of the year's activity.

Consultations and Inspections deserve first mention. During the year I have been consulted from all parts of the Administrative County by medical officers of health, sanitary officers, private residents, and public bodies. Besides 46 specific complaints communicated to me my advice was sought and given relating to matters of sanitary importance on a vast number of occasions which my letter-book shows reached into the hundreds. With regard to inspections and visits to particular localities I find that I made 130 such investigations on the spot during the year,—not including the work of the County Sanitary Inspector nor the numerous visits undertaken in connection with the Sanitary Survey. In a goodly number of instances I attended, by request, meetings of local District Councils to confer with the Authority on matters under their consideration, chiefly hospital provision.

The Sanitary Survey of the Riding.—The sixth instalment of this comprehensive work was presented by me in February, 1900, and dealt with the sanitary circumstances of the Thorne Union. Subsequently I attended a meeting of the Local Authority to discuss with them the steps necessary to supply the sanitary requirements of the district, and in December a joint conference took place between the Local Authority and the West Riding Sanitary Committee with regard to my report.

The next section of the County to come under Survey was the Goole Union. Every one of the 15 parishes as well as the important sea-port of Goole was carefully inspected during 1900, but the report (No. 7) could not be got into type before the end of that year.

Reports.—Five printed "General Reports" were made by the County Medical Officer during 1900, dealing with some 60 subjects which were down for consideration by the Sanitary Committee. In addition I made special printed reports on (1) the prevalence and cure of consumption with especial reference to the treatment of phthisical patients in sanatoria, and (2) the establishment of a County Bacteriological Laboratory in my department. As mentioned elsewhere the latter is now, happily, an accomplished fact. Under the Isolation Hospitals Act, I made thirteen reports to the Committee relating to the necessity of the provision of hospital accommodation.

The monthly issue of the County Notification Summary was continued throughout 1900 (the tenth year of publication) and I was able to make use of its pages in notifying local medical officers of the progress of bubonic plague at Glasgow and the incidence of arsenical beer poisoning in the Riding.

An unusually large number of special reports (175) relating to outbreaks of infectious disease were received during the year and duly attended to.

Public Inquiries.—Fifty-seven inquiries were held during 1900 by the Local Government Board relating to sanitary matters in the Riding, and all of these were noted, and personally attended where necessary. The complete list is given below for record purposes, together with the result of each inquiry so far as I have been able to ascertain the same. In addition to this list there were several public inquiries held by the Sanitary and other Committees of the County Council which it was necessary for me to attend.

Date.	Sanitary District and *Locality.*	Subject.	Amount.	Result.
			£	
17.1.00	Ripon City ...	Extension of boundaries	—	Part sanctioned
19.1.00	Wakefield R. *Crofton* ...	Sewerage and disposal	6,000	Sanctioned
24.1.00	Wakefield City ...	Extension of boundaries	—	Part sanctioned
24.1.00	Ossett ...	Ditto	—	Part sanctioned
25.1.00	Shelley and Shepley	Joint Sewerage Board	—	Sanctioned
26.1.00	Hemsworth R. *Ackworth* ...	Sewerage and disposal	950	—
30.1.00	Featherstone ...	Provisional Order for land	—	Sanctioned
31.1.00	Barnsley R. *Carlton* ...	Ditto	—	Sanctioned
2.2.00	Haworth ...	Ditto	—	Sanctioned
13.2.00	Rotherham R. *Tinsley* ...	Sewerage and disposal	10,600	Sanctioned
16.2.00	Knaresbro' R. *Starbeck* ...	Sewerage ...	1,100	—
20.2.00	Brighouse ...	Sewerage and disposal	24,267	Sanctioned
22.2.00	Stocksbridge ...	Land for refuse tip ...	—	—
2.3.00	Drighlington ...	Provisional Order for land	—	Refused
14.3.00	Denholme ...	Sewerage and disposal	1,295	Sanctioned
15.3.00	Bingley ...	Sewerage ...	500	—
28.3.00	Mexborough and Doncaster	Formation of Joint Hospital District	—	Sanctioned

Date.	Sanitary District and *Locality*.	Subject.	Amount.	Result.
29.3.00	Doncaster R. ... *Thurnscoe*	Provision of Burial Ground	1,000	Sanctioned
30.3.00	Ripon R. ... *Grewelthorpe*	Sewerage and disposal	1,100	Refused
30.3.00	Ripon R. ... *Kirkby Malzeard*	Sewerage and disposal	1,400	Refused
6.4.00	Rotherham Boro'	Sewerage and disposal	50,000	—
20.4.00	Wetherby R. ... *Boston Spa*	Sewerage and disposal	2,700	Sanctioned
27.4.00	Knaresbro' R. ... *Bilton*	Sewerage and disposal	600	—
3.5.00	Greetland ...	Water supply and sewage disposal	1,664	Sanctioned
10.5.00	Keighley ...	Sewerage and disposal	15,670	—
16.5.00	Shipley ...	Sewerage works ...	2,000	—
31.5.00	Silsden ...	Sewerage works ...	500	Sanctioned
8.6.00	Leeds ...	Hospital buildings at Manston & Killingbeck	278750	Sanctioned
12.6.00	Keighley and Bingley Joint Hospital District	Extension of hospital	3,500	Sanctioned
19.6.00	Kirkheaton ...	Sewerage and disposal	5,300	Sanctioned
,,	,, ...	Street Improvement	900	—
20.6.00	Clayton ...	Sewerage and disposal	8,000	—
27.6.00	Ardsley ...	Sewerage and disposal	3,348	Part sanctioned
28.6.00	Rothwell ...	Sewerage and disposal	2,720	Part sanctioned
10.7.00	Saddleworth ...	Sewerage ...	4,499	Sanctioned
31.7.00	Wharfedale R. ... *Pool*	Sewerage and disposal	2,500	Refused
1.8.00	Cleckheaton ...	Street improvement and Sewerage	?	—
21.8.00	Ossett ...	Sewage disposal ...	8,500	Sanctioned
22.8.00	Normanton ...	Private street improvement	7,921	—
5.9.00	Pudsey ...	Site for refuse destructor	1,800	—
18.9.00	Rotherham R. ... *Aston*	Sewerage and disposal	4,000	Sanctioned
25.10.00	Wakefield ...	Street improvement...	50,000	Sanctioned
26.10.00	Leeds R. ...	Sewerage and disposal	17,419	—
31.10.00	Skelmanthorpe ...	Sewage works outside area	6,500	Refused
1.11.00	Marsden ...	Deviation from sewage scheme	—	Sanctioned
2.11.00	Holmfirth ...	Sewerage and disposal	30,000	Sanctioned

Date.	Sanitary District and *Locality*.	Subject.	Amount.	Result.
6.11.00	Wath-on-Dearne...	Water undertaking ...	3,000	—
14.11.00	Doncaster R. ... *Conisborough and Denaby*	Sewerage and disposal	10,900	Refused
15.11.00	Doncaster R. ... *Thurnscoe*	Sewage disposal ...	2,366	Refused
16.11.00	Penistone ...	Sewerage and disposal	1,067	Refused
22.11.00	Keighley R. ... *Steeton*	Water Supply ...	1,000	—
30.11.00	Ilkley ...	Land for Tip ...	1,050	Sanctioned
,,	,, ...	Sewerage and disposal	3,360	—
4.12.00	Tadcaster R. ... *South Milford*	Sewerage and disposal	3,150	—
6.12.00	Soothill Nether ...	Water Supply ...	100	—
6.12.00	Wharfedale Hospital District	Erection of hospital...	15,000	Sanctioned
7.12.00	Featherstone ...	Works of sewerage ...	2,270	Sanctioned
11.12.00	Sowerby Bridge ...	Sewerage and disposal	7,357	Refused
21.12.00	Queensbury ..	Sewerage ...	350	—
,,	,, ...	Water Supply ...	100	—

Parliamentary work was exceedingly heavy during 1900, and kept my department fully occupied for some months. Besides our action regarding the various milk clauses, hereafter referred to, there was a great deal of work necessitated by the three Extension Bills promoted from the West Riding. These were as follows:—(1) The Rotherham Corporation Bill, which proposed to extend the borough by taking in parts of Rawmarsh, Greasborough, Rotherham Rural, and Wortley Rural. (2) The Halifax Corporation Bill, which sought the annexation of the urban districts of Warley and Northowram. (3) The Sheffield Corporation Bill, by which the City proposed to absorb parts of Handsworth, Rotherham Rural and Wortley Rural, as well as portions of Derbyshire.

I prepared proofs in opposition of all three Bills and made detailed inspections and investigations on the spot. In the result, the Rotherham proposals were entirely thrown out, whilst the Halifax and Sheffield Extensions were allowed. In the case of Halifax I gave evidence before the Select Committee of both Houses.

Other Borough Extensions were sought during the year by Provisional Order and were granted after Local Inquiries by the Local Government Board, viz:—Ripon City, Wakefield City, and Ossett. I attended the Inquiries and prepared statistical and other information in relation to the proposals.

Protection of Milk Supplies.—(1) DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.—During the year there was a continuance of activity among the Sanitary Authorities of the Riding in framing and remodelling Regulations under this Order. This work was encouraged by the West Riding Sanitary Committee, and I was frequently in conference with local sanitary officers as to the terms of the Regulations sought to be adopted. There are now only a few Authorities in the Riding who are not possessed of Regulations enabling them to control the dairy industry from a sanitary standpoint.

For the guidance of District Councils in this matter, the Committee drew up a set of "Suggestions" as to Cowsheds. These suggestions were the subject of much careful thought at several meetings, and a copy will be found in the appendix to this report, page 71.

(2) MILK CLAUSES IN PRIVATE BILLS.—In continuing the story of Private Bill legislation with regard to milk supplies, it may be well to recapitulate the chief items from my last annual report. It was in 1899 that several Corporations promoted Bills containing "Milk Clauses" seeking powers among other things to go outside their City boundaries and inspect cows, examine samples, and take steps for the suspension of milk supplies suspected of causing tuberculosis in the City. These various milk clauses were ultimately reduced to one pattern in harmony with the "Model Milk Clauses" and in this form they became law with an exception of the case in Leeds. In this Bill, the only one directly affecting the West Riding, a limiting clause was inserted by the Lords' Committee, on the opposition of the West Riding County Council and many County Districts (see page 10 of last year's Report.)

The Session of 1900 brought forth Bills containing milk clauses by Bradford, Halifax, Oldham and Sheffield. As the result chiefly of negotiations with the promoters, the three first named Bills came into line with the Leeds Act of the previous year, and inserted a similar clause limiting the powers in the County Area. Sheffield refused to insert such a clause.

The final result of consideration by Parliamentary Committees was remarkable, for the limiting clause which appeared in Bradford, Halifax, and Oldham was struck out, while in the case of Sheffield (where the County Council were heard in opposition), the limitation clause was also disallowed but a power of appeal was given against any order of the Corporation.

The parliamentary work in connection with this matter was very heavy, necessitating many Conferences both in the West Riding and in London, although I only actually gave evidence on this subject in the case of the Sheffield Bill.

During and after the close of the Parliamentary Session much discussion took place among the Rural and Urban District Councils of the Riding on this subject of milk legislation, and on the 16th November, 1900, an important Conference was held in the County Hall, between representatives of the County Boroughs (except Leeds), the Urban and Rural Councils, and the West Riding Sanitary Committee. The opinion was freely expressed that piece-meal legislation of this kind was extremely undesirable, and resolutions were adopted in favour of more uniform and adequate legislation by a general Act or, failing that, by a special Act applicable to the whole of the West Riding. In the absence of any promise of suitable legislation by the Government it is understood that the legal advisers of the Authorities represented at the Conference will draft a Bill for the West Riding dealing with this and the equally if not more important subject of Sanitoria for consumptives.

Tuberculosis.—The great enthusiasm which was aroused among the sanitary authorities of the Riding during 1899 in regard to the crusade against this disease, continued unabated during 1900. As already mentioned, the protection of the milk supplies from contamination by tubercle was the subject of much activity and of no little controversy. But, important as that phase of the question is, the West Riding Sanitary Committee felt that something ought to be done more directly bearing upon the present prevalence of tuberculosis amongst the inhabitants of the Riding, and particularly in the direction of the isolation and cure of phthisical patients. Accordingly I devoted myself to making inquiries on the subject of sanatoria, both in this country and abroad, and on the 2nd April I was directed to report in full on the whole question. This I did on the 3rd September in a short report which was printed and freely circulated not only in the West Riding but throughout the country. The main question raised by that report was "whether it is desirable and practicable by combined action to make a serious attempt at the isolation and cure of the 6000 sufferers in the West Riding, and by so doing to effectively prevent the spread of phthisis to many who are as yet uninfected." The West Riding Sanitary Committee decided to submit the above important question for the consideration of a conference (already referred to) which was arranged to take place on the 16th November, 1900, between representatives of the County Council, the County Boroughs, and the Executive Committee of the District Councils. At that conference I explained my ideas for a joint sanatorium in the West Riding at which working-class phthisical patients might receive open-air treatment for say three months at a total cost not exceeding £2 per week each, which might be provided by the patient or by local effort. The suggestion was well received and endorsed by the conference, and resolutions were passed in favour of powers being obtained to carry out such a scheme, if possible, at the same time that equable legislation is secured for the protection of the milk supplies of the Riding.

Laboratory.—Complete sanitary analyses were made of 64 drinking waters during the year 1900, while minor determinations were made (chiefly as to lead in solution, or ability to dissolve lead) in 74 other cases. At the commencement of the year I also examined the sources of supply of the proposed Otley works, and at the close of the year similar work was commenced in regard to the Leeds, Harrogate and Ripon Water Bills of this Session.

In my last annual report I mentioned that the appointment of a bacteriologist in this department was extremely desirable, and during 1900 I presented a special report with regard to the matter. As a result we have now an expert bacteriologist in the person of Dr. P. J. Cammidge, and the laboratory is equipped for all kinds of public health work, and is being largely resorted to by medical officers of health and medical practitioners throughout the Riding in connection with the diagnosis of enteric fever, diphtheria, and tuberculosis. Dr. Cammidge commenced his duties in March, 1901.

Water Supplies continue to occupy a place of first importance in the work of the department, chiefly in relation to the rural villages of the Riding where the people are dependent upon wells and other local sources. Many complaints were received during 1900, and a large number of investigations undertaken with results which were reported to the Committee from time to time.

The following were among the places whose water supply received consideration during the year, either as to pollution, protection, or insufficiency or as to the tendency to act upon lead :—

Asquith
Barkisland
Bolton-by-Bowland
Bramham
Brotherton
Cross Stone
Easington
Fairburn
Garforth
Goole Union Parishes
Great Ouseburn
Guiseley
High Hoyland
Linthwaite
Middleton
Morley
Netherthong
Northowram
Otley
Oxenhope
Pannal
Pontefract
Rishworth
Sandal
Selby
Shelf
Yeadon

With regard to Water Bills before Parliament, these received attention as usual, but during 1900 there were very few promoted from the West Riding, and only one in regard to which it was necessary for me to take action, viz., the Otley Water Bill, which subsequently became law and authorises a supply to be obtained from gathering grounds in the parish of Middleton.

On the 11th June I prepared a report in conjunction with the West Riding Solicitor on the proposals of the British Association of Waterworks Engineers with regard to the Nationalization and Protection of the sources of Water Supply in the United Kingdom.

Sale of Food and Drugs Acts.—On the 1st January, 1900, a new Act came into operation, causing some slight modification of procedure and creating several new types of offence. It has been found to work smoothly, and as will be seen from the following tables, an increased number of samples was taken during the year.

QUARTERLY RECORD OF SAMPLES TAKEN DURING 1900:—

DISTRICT.	INSPECTOR.	SAMPLES SENT TO ANALYST DURING 1900.				
		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	TOTAL.
Barnsley ...	J. H. Bundy ...	42	54	44	63	203
Central ...	F. S. Turner ...	36	8	—	22	66
Harrogate ...	H. Gamble ...	50	75	49	83	257
Mirfield ...	H. Newbould ...	59	66	51	79	255
Pontefract ...	W. H. Wilson ...	50	66	46	80	242
Rotherham ...	J. Wilson ...	87	100	77	94	358
Shipley ...	J. Duce ...	57	48	38	84	227
Skipton ...	A. Randerson ...	61	89	88	112	350
Sowerby ...	H. Hargreaves ...	49	57	55	83	244
Total Samples taken by County Inspectors ...		491	563	448	700	2202*
Local Authorities		28	73	62	104	267
Private Purchasers		—	—	—	2	2
Total Samples Analysed ...		519	636	510	806	2471

* The corresponding number in 1899 was 1619.

YEARLY RECORD OF SAMPLES, 1892-1900.

	Genuine.	Doubtful or Inferior.	Adulterated.	TOTAL.	Percentage Adulterated.
1892	541	41	87	669	13°/o
1893	1274	109	193	1576	12 ,,
1894	1319	104	172	1595	11 ,,
1895	1790	119	176	2085	8 ,,
1896	2200	156	161	2517	6 ,,
1897	2213	141	82	2436	3 ,,
1898	1903	197	89	2189	4 ,,
1899	1678	60	139	1877	7 ,,
1900	2245	91	135	2471	5 ,,

The second table continues to show that an increase in the number of samples is accompanied by a decrease in the proportion adulterated. It is therefore desirable to maintain this work at such a level as appears most effectual in keeping down practices of adulteration.

During the year I advised the inspectors upon each certificate where the sample proved to be other than genuine, and legal proceedings were instituted in 83 instances; I attended at Court and gave evidence on medical points in several drug prosecutions, notably in regard to Gregory Powder and Mercury Ointment.

ARSENICAL BEER. In November 1900 the announcement was made that an unusual prevalence of peripheral neuritis in Manchester and certain parts of Lancashire had been traced to the consumption of beer containing arsenic. I immediately set on foot enquiries with a view of ascertaining whether the West Riding was affected, but up to the end of the year I was only able to learn of a few instances of arsenical poisoning except at Keighley, Skipton and Ilkley where the mischief seems to have been promptly noticed. Subsequently, however, a large number of samples was taken, when it was found that contaminated beer had been widely distributed throughout the Riding, though the consequent poisoning was very limited in degree as compared with the epidemic proportions which obtained in Lancashire and other places. However, the story of the complete investigation belongs to the year 1901.

Hospital Accommodation.—Only one combined hospital district (No. 9) was newly formed by the County Council during 1900, and that really belongs to the previous year, the order being made by the County Council as early as January 10th; but a large amount of work was done in the consideration of sites and plans, etc., submitted by various joint hospital committees already formed. In addition the requirements of a number of unattached sanitary districts received attention and as already mentioned I made 13 reports under Section 6 of the Isolation Hospitals Acts. Altogether the work under this head was so great that it became necessary on the 2nd April, 1900, to appoint a standing Sub-Committee to specially deal with the enormous amount of important work relating to hospitals. During the nine months from its appointment to the end of the year this Sub-Committee met on thirteen occasions, held six public inquiries, and visited proposed sites in various parts of the Riding.

Besides attending and advising the Committee at all its meetings with regard to hospital matters I have had numerous Conferences with the local Committees and have attended their meetings (often in the evening) to discuss with them points relating to hospital requirements, sites, plans, etc. I have also had several long interviews with local architects and also with the officers of the Local Government Board on these subjects.

For record and comparative purposes it may be well here to show briefly the state of progress in each of the combined districts :—

I.—PENISTONE UNION JOINT DISTRICT.—Formed 1897. Site given. Plans approved. Local Government Board Inquiry held 20-6-01, for loan of £6000 for buildings. Awaiting result.

II.—SOUTH ROTHERHAM, ETC., JOINT DISTRICT.—Formed 1897. Site and plans approved by County Council. Local Government Board Inquiry held 16-7-01, for loan of £16,000 for site and buildings. Awaiting result.

III.—WHARFEDALE UNION JOINT DISTRICT.—Formed 1897. Site approved and loan of £2300 obtained for same. Plans approved and loan of £15,493 sanctioned for buildings.

IV.—SELBY UNION JOINT DISTRICT.—Formed 1898. No definite progress made. Several sites inspected during 1900.

V.—HARROGATE AND KNARESBOROUGH JOINT DISTRICT.—Formed 1898. Site approved by County Council. Local Government Board Inquiry held 31-5-01, for loan of £4000 for land. Awaiting result.

VI.—KIRKBURTON, ETC., JOINT DISTRICT.—Formed 1899. Site approved by County Council July, 1900. Plans being prepared.

VII.—COLNE AND HOLME JOINT DISTRICT.—Formed 1899. Site approved by County Council. Local Government Board Inquiry held 12-3-01, for loan of £900 for land. Awaiting result.

VIII.—NORMANTON, ETC., JOINT DISTRICT.—Formed 1899. Site approved by County Council. Local Government Board Inquiry held 18-7-01, for loan of £2000 for land. Awaiting result.

IX.—ROTHWELL, METHLEY, AND HUNSLET JOINT DISTRICT.—Formed 1900. Site approved by County Council. Awaiting Local Government Board Inquiry as to loan of £900 for land.

Adverse comments have been heard in various quarters with regard to the great lapse of time which often occurs between the various stages of progress, from the formation of the district to the commencement of building operations. This is due in a great measure to the duplication of Inquiries, etc., which the Local Government Board regard as necessary under the Act, and also to the objections and appeals which almost invariably arise whenever a proposal is made to erect an infectious hospital, even in the most eligible of positions. At all events, the West Riding Sanitary Committee may claim to have accomplished an enormous amount of good work under the Isolation Hospitals Act, during the year 1900, and with absolutely no unnecessary delay on their part.

In addition to the work arising from the properly constituted Joint Hospital Districts of the Riding, attention has been given during the year to the needs of other places, viz., Rawmarsh, Bolton-on-Dearne, Tickhill, Thorne, and nine of the sanitary districts of the Halifax Union. With regard to the last-named group a Conference has recently been held with a view to forming a combination. The Thorne and Tickhill Councils were interviewed and are understood to be contemplating taking steps for themselves. Rawmarsh and Bolton-on-Dearne desired to be included in the Wath and Swinton group but the latter Joint Committee have refused to admit them although strongly urged to do so at a Conference with the West Riding Sanitary Committee early in 1900. The requirements of all these unattached areas, in hospital matters, will continue to receive attention.

During the year much time and consideration was given to the preparation of a model set of hospital plans in conjunction with the West Riding Surveyor. Sketches of such plans were submitted to the Committee in September and were ordered to be lithographed, but the work appears to have fallen into abeyance owing largely to the issue of a new Memorandum by the Local Government Board on the subject.

General.—It would be easy to prolong this introduction without doing more than justice to the importance and magnitude of the work accomplished during 1900. Enough has been said, however, to show that the work is growing and must continue to grow and bear good results. It only remains for me to acknowledge with satisfaction the services of my staff in all departments during a year which brought many special calls upon their time and ability.

PART II.

ABSTRACT OF ANNUAL REPORTS.

1. General Remarks as to Reports Received.—In the year 1900 the West Riding Administrative County consisted of 134 Urban Districts and 29 Rural Districts*. One of the large Rural Districts has two Medical Officers, so that the total number of Annual Reports for the year should be 164. The vital statistics for each of these divisions have been carefully abstracted, and are shown in detail in the tables folded at the end; but although this abstract is complete so far as regards the vital statistics for the year, there are one or two instances where the actual text of the local Medical Officer's Report has not been received by the County Council, owing to the demise of the Medical Officer or other cause.

I have again to complain of the great delay which has occurred owing to the tardy manner in which some of the reports have reached me, thus preventing the completion of the present abstract until September. The majority of the reports came to hand by the end of March, but I am compelled to await the arrival of the last stragglers before I can proceed with the compilation of my report.

One of the chief causes of the delay has been that the Local Government Board have entirely remodelled the form of statistical tables which are prescribed for Medical Officers' Reports. This alteration was, no doubt, an improvement from a statistical point of view, but, coming without notice, it placed an unusual amount of clerical work on the local Medical Officers at the last moment, and entirely disorganised their plans, especially as the new tables required the statistics of past years to be shown for comparison. Many of the medical officers are not in possession of such back records, but fortunately I was able to supply them in the majority of cases from the statistics which are kept for reference in this Department, thus demonstrating the value of the County Council as a central bureau for public health matters. I had an opportunity of criticising the new form of tables before they were issued, and, although most of my objections have been met, I shall have occasion to refer to one or two points in the newly prescribed statistical schedules, which I regard as calling for modification.

It is a pleasure to record that there is a further general improvement in the style and thoroughness of the annual reports under review, and a growing tendency to arrange them on systematic lines and to conclude by enumerating the chief sanitary requirements of the several districts. As stated in my last annual abstract, we seem to have accomplished all that is to be expected in the matter of persuading Sanitary Authorities to have their medical officers' reports printed and circulated. There remain some score of Authorities in the Riding (Table III., see end) who apparently do not yet see the wisdom of increasing the usefulness of the annual report by putting it into type. The number of reports printed for 1900 was 138.

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* This alteration in numbers is explained by the absorption of five districts by Bradford County Borough (Eccleshill, Idle, North Bierley, Thornton, and Tong): the creation of the new Urban Districts of Bolton-on-Dearne, Cudworth, and Wheatley; the absorption of Uppermill by Saddleworth, and the conferring of Urban powers on the hitherto Rural District of Saddleworth. The Halifax extension, which came into operation so lately as November, 1900, has been ignored for the purposes of this Report.

In a memorandum recently issued by the Local Government Board a useful outline was given of the points which ought to be dealt with in the annual report of a local medical officer of health, and I deem it well to reproduce them here, although not suggesting that reports should be limited to the items given :—

> Physical features and general character of the District.
>
> House accommodation, especially for the working class : its adequacy and fitness for habitation. Sufficiency of open space about houses and cleanliness of surroundings. Supervision over erection of new houses.
>
> Sewerage and Drainage : Its sufficiency in all parts of the district. Condition of sewers and house drains. Method or methods of disposal of sewage. Localities where improvements are needed.
>
> Excrement disposal : System in vogue ; defects if any.
>
> Removal and disposal of house-refuse,—whether by public scavenging or occupiers : Frequency and method.
>
> Water Supply of the district or its several parts : Its source (from public service or otherwise), nature (river water, well water, upland water, etc.), sufficiency, wholesomeness, and freedom (by special treatment or otherwise) from risks of pollution.
>
> Places over which the Council have supervision, e.g , lodging-houses, slaughter-houses, bake-houses, dairies, cow-sheds, and milk-shops, factories and workshops, and offensive trades.
>
> Nuisances : Proceedings for their abatement—any remaining unabated.
>
> Methods of dealing with infectious diseases : Notification, Isolation Hospital accommodation and its sufficiency : disinfection.
>
> With regard to such points it should be remembered that these reports are for the information of the Board and of the County Council as well as of the Council of the District, and that a statement of the local circumstances and history of local sanitary questions, which may seem superfluous for the latter, may often be needed by the former bodies.
>
> The Medical Officer of Health, in reporting his proceedings and advice, should put on record whether he has made systematic inspections of his district. By "systematic inspections" are meant inspections independent of such inquiries as the Medical Officer of Health may have to make into particular outbreaks of disease, or into unwholesome conditions to which his attention has been specially called by complaints or otherwise, and such inspections will include the house-to-house inspections which may be necessary in particular localities.
>
> In making systematic inspections, as in much of his other action, the Medical Officer of Health will usually have required the assistance of the Inspector of Nuisances ; and the Medical Officer should include in his report an account of the action which, at his instance, the Inspector may have taken for the removal of nuisances injurious to health.
>
> The report should deal with the extent, distribution, and causes of disease, especially of epidemic and notifiable diseases, within the district ; and should give an account of any noteworthy outbreaks of such diseases during the year under review, stating the result of his investigations into their origin and propagation, and the steps taken by him, or on his advice, with a view to check their spread.
>
> The tabular statements of sickness and mortality in the District during the year, to be made on the forms supplied for the purpose, should be the subject of comment in the text of the report, in so far as deductions from them may assist the Board and the Councils concerned to an appreciation of the lines of action needful in the future.

2. Population Area, &c.—Since the several Reports under review were written, the gross results of the recent Census have been issued, and I have therefore discarded all the local estimates of population given by the local medical officers and substituted my own estimates for 1900 based upon the new Census figures. These estimates are shown for each district in the Riding in Table I, column 3 (see end.) On the basis we find that population, &c. of the Administrative County at the middle of 1900 was :—

	Population 1900.	Area in Acres.	Persons per Acre.
Urban Districts	1,110,229	374,930	2·96
Rural Districts	341,762	1,190,571	0·29
West Riding Administrative County	1,451,991	1,565,501	0·93

The effect of my controlling the estimated populations for 1900 by reference to the enumeration of 1901, has been to modify the rates of mortality arrived at by several local medical officers, but I think none can complain of this as being unfair for it is manifestly safer to subtract nine months increment from the 1901 enumeration, than to attempt to add nine years' growth on to the 1891 figures.

With regard to the area of the Riding, as given above, I am less confident. The census figures showing acreage are not yet issued, and there have been so many changes of boundary in recent years that it is impossible to be precise.

Births.—The gross number of births registered during 1900 in the West Riding Administrative County was 42,057. As usual, the males slightly predominated, the sex-distribution being—males 50·8 per cent., females 49·2. These figures afford further confirmation of our declining birth rate, the proportion of births for 1900 being 28·9 per thousand of the population as compared with 30·1, the average of the previous five years. The rural districts maintain a somewhat higher birth rate than the Riding generally ; the rate for the latter is practically the same as that for England and Wales, and slightly higher than in the large County Boroughs. Both in the West Riding and in the country as a whole the birth rate of 1900 constitutes the lowest ever recorded, although the actual decrease upon the previous year is very slight.

Table I. (see end) shows the birth rate of every district in the Riding, and affords material for an interesting study of this subject. For example, there are more than a score "urban" districts in which the annual birth rate fell below 20 per thousand, while on the other hand in some thirty districts the rate exceeded 35 per thousand. As usual, the highest birth rates prevailed in certain colliery districts possessing a young population, for example—Bolton-on-Dearne (45·0), Cudworth (39·0), Darfield (42·4), Hoyland Nether (41·6), Monk Bretton (39·0), Normanton (42·7), Rawmarsh (42·4), Royston (42·1), Whitwood (39·5), Wombwell (42·0), Worsborough (41·1). In many of these districts it should be noted, however, that the deaths of infants reached a very high figure.

Illegitimate Births are not separately distinguished in the statistical tables supplied to me. As sanitarians, however, we are bound to take a note of the social and moral condition of the community whose health is our concern, and I have ascertained that 786 children were born out of wedlock in 65 sanitary districts. Applying this proportion to the remainder of the districts it would appear that there were in the Administrative County some 1650 illegitimate births during 1900, equal to 1·14 per thousand of the population. The corresponding rate for England and Wales is about 1·2.

Still Births do not usually figure among the vital statistics, although they are not without some bearing on the public health. In some of the local annual reports the number of still births is given, so far as known to the medical officer, and the rate in those districts during 1900 was 1·76 per thousand living. If this rate prevails generally there must have been over 2,500 still births in the Administrative County during the year. In addition to this there were 932 children whose deaths were certified as due to "premature birth." Most medical officers will agree with Dr. J. A. Erskine Stuart, of Batley, who gives his opinion that "the time has come when a proper "system of the registration of still births, as well as of premature children, "should be made by the Registrar. Legislation is urgently demanded in this "direction."

The Death Rate for 1900 according to the figures in column 9 of Table I. (see end) works out at 17·8 per thousand. This rate is considerably in excess of that for the previous year 16·9, but it is only slightly above the average of the past five years (17·5). It would, however, appear to be below the rate for England and Wales during 1900, although I am dubious that such is the case, for the following reason:—The actual number of deaths registered in the Administrative County was 26,573, which gives a rate of 18·3; but in the new tables prescribed by the Local Government Board, Medical Officers of Health are only required to show the causes, &c., of deaths of persons properly belonging to their district. Thus each Medical Officer of Health cuts out all deaths of persons belonging to his neighbouring districts and neglects to take in deaths of his own residents occurring elsewhere, except so far as they may have come informally to his knowledge. The consequence is that nearly 800 deaths which occurred in the Administrative County during the year have been struck out of the districts where they occurred and not taken in by the districts to which they properly belonged. A few of these 800 may, of course, have hailed from other counties or from the County Boroughs, but the great majority must undoubtedly have been persons resident in the Administrative Riding, and, therefore, I think it is best to face the higher figure and credit ourselves with a death rate of over 18·0 per thousand.

In column 18 of Table I. (see end) will be found the death rates of every Sanitary District in the Riding. It is not necessary to make reference here to any particular district, but, as a rule, those having high death rates will be found to have also a high birth rate and an excessive rate of infant mortality, about which I shall remark later on.

Uncertified Deaths.—No complete figures are available, but among 50 of the Sanitary Districts there were altogether 274 deaths which were uncertified by either Medical Practitioner or Coroner.

Annual Rates for Ten Years.—This is the usual Table comparing the chief total statistics for the past decade. The 1900 figures show an increase in the general death-rate and in the mortality from scarlet fever, measles and diphtheria.

West Riding Administrative County, 1891-1900.—Annual birth and death rates per 1000 of the population (from the County Medical Officer's annual abstracts).

	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Birth-rate	29.6	30·8	31·1	29·9	30·9	30·4	30·5	29·7	29·0	28·9
Death-rate... ...	21·4	18·0	19·3	16·0	18·6	17·2	17·0	17·7	16·9	18·3
Infant Mortality† ...	162	143	168	138	163	149	151	165	152	160
Zymotic Death-rate	1·87	1·71	2·48	1·39	2·10	2·00	1·94	2·21	1·93	2·17
Small Pox ,,	0·02	0·12	0·11	0·03	0·02	0·00	0·00	0·00	0·01	*nil*
Scarlet Fever ,,	0·20	0·22	0·20	0·18	0·17	0·22	0·22	0·16	0·17	0·21
Diphtheria & Croup	0·20	0·21	0·24	0·19	0·21	0·23	0·16	0·18	0·21	0·32
Typhus Death-rate	0·00	0·00	0·00	0·00	*nil*	0·00	*nil*	*nil*	*nil*	*nil*
Enteric Fever ,,	0·19	0·16	0·28	0·19	0·20	0·20	0·19	0·25	0·22	0·19
Continued ,,	0·01	0·01	0·00	0·00	0·00	0·00	0·00	0·00	0·00	0·00
Measles ,,	0·53	0·25	0·38	0·25	0·33	0·56	0·32	0·41	0·26	0·54
Whooping C. ,,	0·37	0·41	0·24	0·34	0·19	0·44	0·22	0·29	0·25	0·23
Diarrhœa ,,	0·35	0·33	1·03	0·21	0·98	0·35	0·83	0·92	0·81	0·67
Respiratory ,,	5·10	3·90	3·77	3·14	3·60	3·33	3·07	3·28	2·91	3·23
Phthisis ,,	1·60	1·40	1·49	1·27	1·39	1·28	1·30	1·33	1·23	1·14

† Deaths under one year per 1000 births.

Comparative Mortality.—The following chart is inserted to enable one to see at a glance the position of the chief diseases in death returns of 1900. The actual figures are given in Table II. at the end.

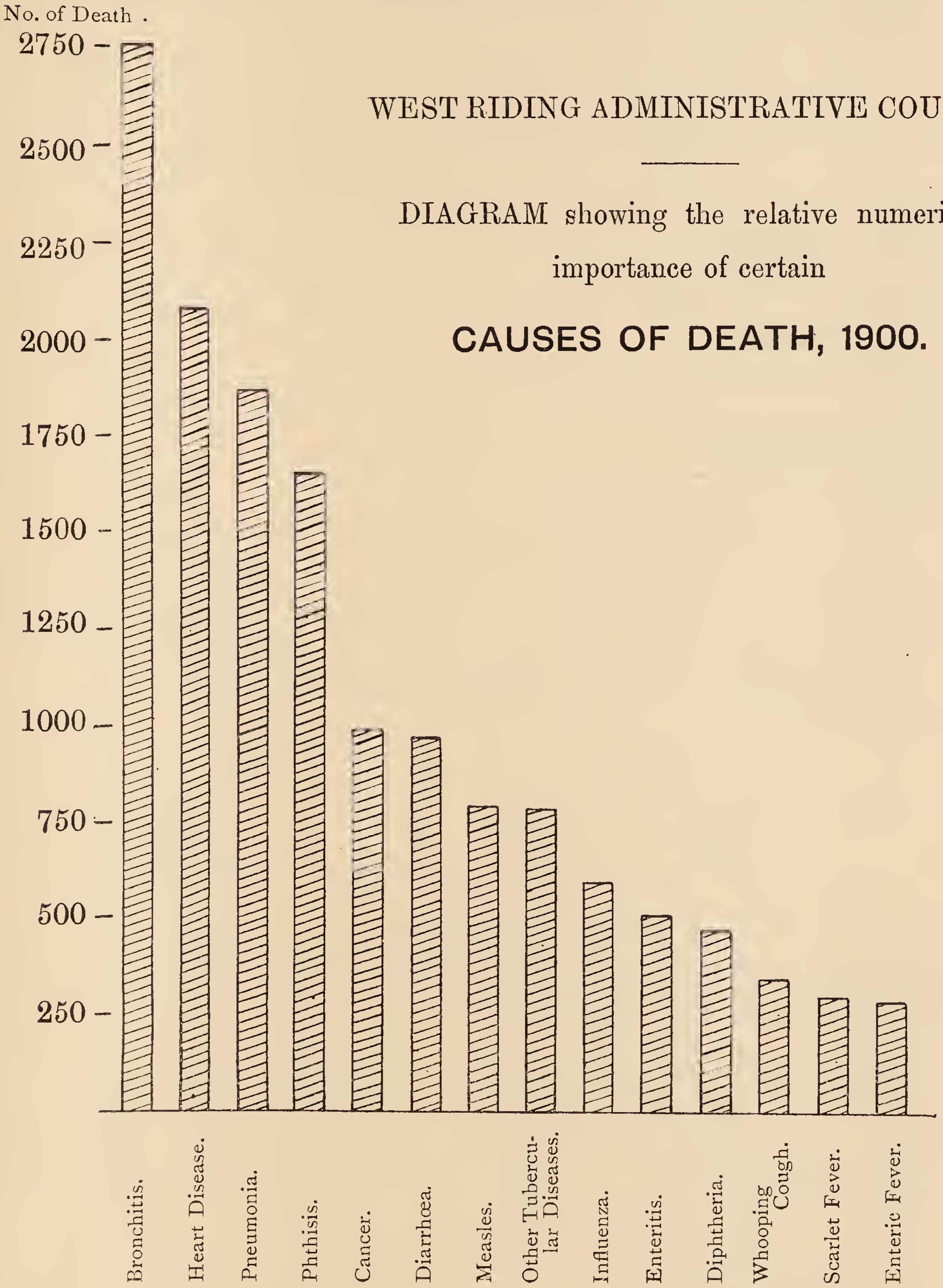

WEST RIDING ADMINISTRATIVE COUNTY.

DIAGRAM showing the relative numerical importance of certain

CAUSES OF DEATH, 1900.

Of course, the relationship shown above is one of numbers only. The actual importance of the various diseases from a national standpoint is perhaps not strictly in the same relationship, for some of the diseases cause death chiefly at the extremes of life, while others, such as phthisis and cancer mainly operate at ages when the victims are of greater value as citizens. It is satisfactory to note that the diseases which are of a more pronounced infectious nature do not loom large on the above diagram.

Urban and Rural Statistics, 1900.—The two following tables show that the Rural Districts of the Riding suffer a lower death rate than the Urban Districts, with very few exceptions. During 1900, diphtheria appears to have been more fatal in the Rural Districts.

	Annual Rates per 1,000 of the Estimated Population.					Infant Mortality (Deaths under one year per 1,000 Births)
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
(1) Urban Districts (134) in the West Riding	28·7	17·9†	2·21	1·21	3·36	164
(2) Rural Districts (29) in the West Riding	29·8	17·1†	2·05	0·90	2·84	147
(3) **West Riding Administrative County** ...	28·9	18·3	2·17	1·14	3·23	160

† Excluding Asylum deaths.

TABLE SHEWING THE COMPARATIVE INCIDENCE OF THE PRINCIPAL ZYMOTIC DISEASES IN THE URBAN AND RURAL DISTRICTS RESPECTIVELY—

(From the County Medical Officer's Abstracts.)

	1897		1898		1899		1900	
	Urban Districts.	Rural Districts.	Urban Districts.	Rural Districts.	Urban Districts.	Rural Districts.	Urban Districts.	Rural Districts.
Small Pox ...	0·00	*Nil*	0·00	0·00	0·01	0·01	*Nil*	*Nil*
Scarlet Fever ...	0·24	0·15	0·16	0·16	0·14	0·27	0·21	0·18
Diphtheria & Croup	0·15	0·15	0·18	0·16	0·20	0·27	0·28	0·47
Typhus ...	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*
Enteric Fever ...	0·20	0·15	0·25	0·22	0·22	0·22	0·20	0·16
Continued Fever ..	0·00	0·00	0·00	*Nil*	0·00	0·00	0·00	*Nil*
Measles ...	0·34	0·24	0·44	0·31	0·27	0·23	0·58	0·42
Whooping Cough..	0·23	0·21	0·31	0·24	0·26	0·20	0·24	0·21
Diarrhœa ...	0·89	0·64	0·91	0·96	0·82	0·76	0·69	0·61
Total Zymotic Death-rate ...	2·05	1·54	2·25	2·05	1·92	1·96	2·21	2·05
Do. for Administrative County generally ...	1·94		2·21		1·93		2·17	

Ages at Death.—This table shows the number of persons who died during 1900, arranged in six age-groups. As usual, practically one-half of the total deaths occurred at ages under 25.

Number of Deaths Recorded at certain Age-periods, 1900.

	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 and upwards.	All Ages.
Urban Sanitary Districts (134)	5216	2735	890	910	5902	4271	19924
Rural Sanitary Districts (29)	1503	725	288	237	1503	1596	5852
Total Administrative County ...	6719	3460	1178	1147	7405	5867	25776

The following table has been compiled to ascertain whether there be any divergence in the age-distribution of deaths compared with the figures of recent years, but the ratio appears to be very constant.

Percentage of Deaths Recorded at certain Age-periods.

West Riding Administrative County.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 and upwards.	All Ages.
Year 1900	**26·1**	**13·4**	**4·6**	**4·5**	**28·7**	**22·7**	**100**
1899	26·1	11·5	4·1	4·6	29·7	23·9	100
1898	27·6	12·6	4·0	4·7	28·5	22·7	100
1897	27·1	11·9	4·1	4·9	29·2	22·8	100

Infant Mortality.—During 1900 the proportion of children who died before completing their first year of life was 160 out of every thousand born. The ratio for the previous year was 152, and the average of the previous five years was 156.

In column 22 of Table I (see end) will be found the rate of infantile mortality for each district of the Riding. In computing these rates we are not under any doubt as to the correctness of our estimate of population or other variable factor. We have the actual number of births registered, and the actual number of deaths under one year of age, and there is no getting away from the facts shown. It may be a process of "survival of the fittest," but if so, one cannot help thinking that when so large a number succumb during the first year it is a bad augury for the fitness of those who manage to survive.

Among the districts which were most noticable during 1900 for their high rate of infant deaths were Birstal (230), Cudworth (246), Doncaster (245), Featherstone (225), Royston (225), Whitwood (245).

With regard to Doncaster, Dr. J. Mitchell Wilson thinks "there can be "little doubt but that the deaths among those living in the common yards help "to keep up this excess. The deaths during the last six months of the year "were, among these children, more than double the number that occurred "during the first half of the year. An increase of temperature above the "average seems to be the means of stirring up some influence which is very "prejudicial to young children, and the after effects appear to continue to the "end of the year."

At Barnoldswick, Dr. Alderton found that "many young infants were "regularly taken from their beds in the early morning and carried to be "nursed at some neighbour's house (their parents going to the factories), so "predisposing the children to chest troubles."

A different course must operate in the Pontefract Rural District, for, as Dr. Percival points out, "the women, as colliers' wives, do not leave their "children to go out to work, and as the physique of the people is as a rule "good, it seems to indicate a great amount of carelessness in the management "of the children, and more particularly in the feeding department."

Several medical officers in their reports call for some system of educating mothers; Dr Richardson of Ravensthorpe has no doubt that "a large "number of infants are lost from the ignorance of their parents of hygienic "treatment and the proper method of feeding. I believe the best way to instil "these subjects into the minds of people is to make such things part of the "routine education in schools."

Writing of the causes of the shocking infant mortality which occurs at Featherstone, Dr. Buncle says—"Wilful neglect and cruelty is looked after by "an association organised for the purpose. I am, however, of opinion that the "ladies who urge the claims of this association would confer even a greater "benefit on mankind by an organisation sufficiently far reaching to come in "contact with the mothers themselves, and induce them by their instruction "and advice to see the benefits they would derive from even an elementary "knowledge of food, clothing, and cookery. The County Council are assisting "in this by endeavouring to teach all this to the elder girls (the future "mothers). They might even be induced to go a step further in order to "reduce the high infant mortality."

Dr. G. R. Green, of Ripon, regards it as a subject for congratulation that the infant death rate there has dropped from 175 to 113. He attributes this to the absence of any diarrhœa epidemic and to the growing use of sterilized milk for infants.

Zymotic Diseases.—The proportion of deaths from the seven principal zymotic diseases (enumerated below) was on the whole slightly in excess of the average, viz., 2·17 as compared with 2·03. This increase was largely due to the excessive prevalence of measles during 1900. In the following pages will be found remarks of interest appearing in the reports regarding these diseases, while Tables II. and III. (see end) give the actual figures for each district of the Riding.

The following Table shows how the zymotic death-rate of 1900 was built up.

Zymotic Disease.	No. of Cases 1900.	No. of Deaths 1900.	Ratio of Deaths.	
			(*a*) per 1000 persons attacked	(*b*) per 1000 persons living.
(1) Small Pox ...	6	—	Nil.	Nil.
(2) Scarlet Fever ...	7929	298	37·6	0·21
(3) Diphtheria and Membraneous Croup ...	1921	468	243·6	0·32
(4) Typhus, Enteric and Continued Fevers	1652	285	172·5	0·19
(5) Measles ...	Not notified	791	?	0·54
(6) Whooping Cough ...	,,	340	?	0·23
(7) Diarrhœa and Cholera	,,	974	?	0·67
Total of Chief Zymotic Diseases ...	?	3156	?	2·17

I do not think it necessary to draw special attention at this stage to any sanitary districts where the zymotic death-rate for the year was noticably high, because any necessary observations will come more appropriately under the heading of the particular disease or diseases responsible for any such excessive death-rate.

Small Pox (Tables II., III., and pages 36, 37). During 1900 there were only six cases of this disease reported in the West Riding, and these occurred in the four widely separated districts of Wakefield, Saddleworth, Warley, and Doncaster Rural. The cases were all directly imported from outside the Riding. They received prompt treatment and isolation, and all recovered.

The two cases which occurred in the Saddleworth District were no doubt connected with a centre of infection in the adjacent borough of Oldham, and, although the latter place is not in the West Riding, the manner in which small pox reached there was so remarkable that I must briefly quote from Dr. H. Ramsden's report on the matter. He writes: "The Oldham cases "were directly traceable to Russia, where a man from Stalybridge contracted "the disease. Feeling very ill he at once determined to come home, and did "so on April 20th, 1900, travelling via Flushing, Queenboro', London, and "Manchester. Strangely enough, no one at any of these places recognised "the disease, although it was distinctly recognisable. Between London and "Manchester he had three fellow-passengers in the same compartment, one

" from Oldham, another from Bolton, and a third from Carlisle. Each of " these subsequently fell sick of the disease in their respective homes. " Between Manchester and Stalybridge he infected a Stalybridge man who " happened to travel with him. The Oldham case, with others in its train, " were removed to the Small Pox Hospital at Strinesdale, and it would seem " that it is to these cases that ours (in the Saddleworth Rural District) are " traceable. It is certainly a most scandalous thing that a man showing " every sign of small pox should have been allowed to arrive at Queenboro', " and travel thence through London to Stalybridge, without the disease having " been recognised. This want of recognition has caused outbreaks of the " disease at Oldham, Bolton, Carlisle, Manchester, and Saddleworth."

The County having been free from any prevalence of small pox during the year, the reports afford no direct figures showing the value of vaccination, unless indeed the absence of the disease in epidemic form be taken as evidence of the general protection secured by compulsory vaccination. In several reports satisfaction is expressed at the efficient working of the new vaccination law. For example, Dr. Lawson writes : " The amount of public vaccination " in the last two years at Hebden Bridge has exceeded that done in the " previous ten years. The new system is highly appreciated by the people, " and grows generally in favour. House visitation and the sole use of calf " lymph has made the Act decidedly popular in this district."

In many quarters, however, I have heard from Medical Officers expressions of serious alarm at the growing practice of vaccinating with one small mark only. This is bad work, affording little protection, and, although it may be popular with parents, it is regrettable that a few medical men should be willing to attain popularity by such means. The practice is referred to in the Rotherham Rural report, and is also said to be on the increase at Wath-on-Dearne. The verdict of the Royal Commission on Vaccination was to the effect that " the greater the number of marks the greater is the protection in " relation to small pox enjoyed by the vaccinated person."

Dr. W. L. Hunter, of Pudsey, has investigated the old Register of Burials at that place, and is able to compare the closing years of the eighteenth century (before vaccination was discovered) with the same period of the nineteenth century in the matter of small pox mortality. He writes : "From 1777 to 1800, 204 persons who died of small pox (nearly all " young children) were buried in one graveyard of Pudsey—the Old Chapel. " From 1887 to 1900, five persons at the outside died in the whole of Pudsey " from small pox. The population of the latter period was over three times " as great as in the former."

Chicken Pox.—No separate figures are available regarding this disease, except those furnished in the monthly summary of diseases issued by the West Riding Sanitary Committee (see page 37). From that source it appears that the Riding was never free from a few cases of chicken pox, although no mention is made of any notable outbreak.

Scarlet Fever (Tables II., III., and pages 36, 37) was more or less prevalent throughout the whole year, it greatest incidence occurring in October and November. February was the period of least prevalence, but even then 500 cases occurred during the month.

Altogether 7,929 persons contracted scarlet fever during the year, and of these 298 died of the disease. These figures are considerably in excess of the records for the two previous years, but only slightly above the five years' average. In many places the disease assumed epidemic proportions, and caused great trouble to the health officers and school managers. During the year I received 24 special reports regarding local outbreaks of scarlet fever, and in 17 of these it was mentioned that school closure had been resorted to as a means of preventing the spread. In some districts, e.g., Rotherham and Todmorden, the disease persisted for many months in spite of all precautions, though in the former place proper hospital isolation does not seem to have been available.

Taking the Administrative County as a whole, I find that 5·5 persons out of every thousand living were attacked by scarlet fever during the year 1900, but in many districts the attack-rate was twice or thrice this figure. Among the localities suffering the greatest incidence were the following:—

Sanitary District.	No. of Cases of Scarlet Fever.	Attack-Rate per 1000.	No. of Cases removed to Hospital.	Remarks.
Barkisland ...	31	17·9	3	No proper hospital. Home isolation a failure.
Darton ...	83	10·9	18	Spread by convalescent children at liberty.
Farsley ...	62	11·2	—	Hospital full. Mild type. No deaths.
Handsworth ...	169	12·2	—	Awaiting hospital erection.
Hoyland Nether	131	10·6	13	Parents prejudiced against hospital.
Oakworth ...	59	13·8	20	Hospital being extended.
Rawmarsh ...	160	11·1	35	Hospital provision still in abeyance.
Rotherham ...	726	13·6	54	Hospital advocated for some years and still needed.
Sandal ...	126	18·8	46	Hospital quite unsuitable. Proper one required.
Skipton ...	253	21·3	69	Rigorous precautions taken. Hospital being extended.
Stocksbridge ...	88	13·5	40	Spread by mild cases not notified.
Todmorden ...	443	17·5	171	Hospital full. Enlargement proposed.
Keighley Rural...	119	19·8	65	Mild type. Hospital insufficient.
Kiveton Park R.	110	16·5	—	Awaiting hospital erection.
Rotherham R. ...	189	10·2	102	Awaiting hospital erection. Temporary accommodation exhausted.

Throughout the reports there is evidence that the various Medical Officers of the Riding have been very painstaking and energetic in their efforts during 1900 to combat the spread of scarlet fever. In many districts the obstacles encountered have been those enumerated by Dr. F. E. Atkinson in his report on Skipton, viz. :—"1. Insufficient hospital accommodation, which made it "impossible to isolate cases as they arose. 2. The mildness of the type of "the disease, which tended to induce carelessness of individuals. 3. The "concurrence at one period of measles, a non-notifiable disease, with which "some cases were probably confused."

At Horsforth, Dr. Bailey thinks that "the close proximity of the district "to Leeds is undoubtedly a reason why the district has this year been so "much affected by this disease. Having such a large residential population "constantly passing between here and Leeds, the district is thereby peculiarly "liable to suffer in a smaller degree from the epidemic diseases there "prevalent."

There are, as usual, universal lamentations as to the utter uselessness of home isolation in the ordinary dwelling. In a house at Tickhill, Dr. Wilson found that "the patient was nursed in a room through which the family had "to pass to reach their bedroom." A case occurred at Greetland, and "the "mother did not pay much attention to it, as she thought the illness to be "measles. Her own children still attended school, and other children were "allowed to visit the house. To this one case," writes Dr. Brown, "I was "able to trace the majority of the others, which were, fortunately, of a very "mild type."

Dr. Robertshaw visited a house in a populous part of Stocksbridge and found a girl freely desquamating after an attack of scarlet fever. "She was "in the house-place where the rest of the family had their meals. Two younger "girls were at school, and two elder were at the factory. The mother said "she thought the girl had had measles and gave that as an excuse for not "having notified the case. Within a short time not less than seven cases of "scarlet fever had occurred in the almost immediate vicinity of the house where "the case was." In the adjoining rural district of Wortley, Dr. Anderson reports that "many cases of scarlet fever are so mild that they are treated as "measles or cases of ordinary sore throat, and thus escape notification "altogether. These cases are sent to school at a stage when they are certainly infectious and their detection is difficult."

All are agreed as to the efficacy of proper hospital isolation provided the first case can be discovered and removed, as was done at Ardsley where Dr. Townsley affirms that they thus secured immunity from epidemics. He adds :—"Very little difficulty is now experienced in obtaining consent to the "removal of the children to hospital, the public evidently being now aware in "the case of infectious disease of the duty they owe, not only to themselves, "but also to their neighbours."

It is gratifying to record a general improvement in the proportion of cases isolated in hospitals. Out of the 7929 persons attacked with scarlet fever, 2783 or 35·1 per cent. were removed to isolation hospitals. The proportion during the previous year was 33·8 It cannot be supposed that the remaining cases were provided with anything like satisfactory accommodation at home.

Diphtheria (Tables II., III., and pages 36, 37).—This disease, which had been increasing during the two preceeding years, assumed far greater prevalence during 1900. There were notified during the year 1,921 cases, either as diphtheria or membranous croup, and of these 24 per cent., or 468 in number, succumbed.

This preventible disease thus contributed 0·32 to the County death rate (0·28 in the Urban Districts and 0·47 in the Rural). These rates are somewhat higher than the figure for England and Wales, but not nearly so high as that which obtained in the large County Boroughs of the Riding.

Diphtheria was widely prevalent throughout the whole year. The highest figures were recorded in December, but in no month was there anything like a notable subsidence. A glance down column 4 of Table III. (see end) will show in what localities the majority of cases occurred, but I may specially refer to the following districts, where the attack rate was at least three times as high as in the rest of the Riding—Burley-in-Wharfedale, Harrogate, Keighley, Knaresborough, Rothwell, Stocksbridge, Hunslet Rural, Knaresborough Rural, and Wortley Rural. In many districts severe and prolonged epidemics were experienced which defied the usual restrictive measures. I received eighteen special reports on the subject during the year, and in thirteen it was mentioned that schools had been closed. In the appendix (page 70) will be found a copy of a handbill which I drew up for circulation in the infected districts.

Many of the reports blame the climatic conditions for a large share of the diphtheria prevalence; others point to insanitary circumstances which require attention; and all agree that the only safety lies in detecting and isolating the early and mild cases which often pass for ordinary sore throat and are allowed to attend school. The County Council have now established a bacteriological laboratory, which provides a means whereby any practitioner in the Administrative County may procure free of charge a definite pronouncement as to whether any case of sore throat is of a diphtheritic nature. In the future this bacteriological diagnosis will, without doubt, be an important factor in the prevention of epidemics of diphtheria, and already the laboratory has justified its existence. Moreover, in a few years' time when the various hospitals which the County Council have initiated are ready for patients, we shall be much better prepared to deal with diseases of this kind.

The reports under review afford little direct information as to the practical value of anti-toxin in the treatment of diphtheria, but, if we compare the figures for recent years, there is a significant reduction in the relative fatality of the disease which may be due to the increasing use of anti-toxin as a curative agent. In 1896, out of every hundred persons attacked by diphtheria in the Administrative County, 36·3 died; in 1897 the deaths were 32·1 per cent.; in 1898, 32·9; in 1899, 31·2; while in 1900 the case-mortality was only 24·4 per cent. It is mentioned that in some ten districts the Sanitary Authority saw the wisdom of supplying anti-toxin gratis, where necessary.

At Burley-in-Wharfedale, Dr. Hebblethwaite says—"the initial cases "were tested and the diagnosis confirmed by culture methods, and almost all "were treated by the injection of anti-toxin." In spite of this the attack-rate at Burley was the highest in the County (18·7 per 1000), probably due to mild cases attending school.

In the Harrogate Report Dr. W. J. C. Ward writes as follows:—"In "my last Annual Report I was under the impression that the outbreak and "continuance of diphtheria was mainly due to defective drainage in two of "the large public schools. I am more inclined to think that damp and decomposing animal and vegetable matter are the chief causes of this disease. "The rainfall, 37·8 in., is the heaviest recorded for 30 years. February and "August were the wettest months of the year, the very months that diphtheria "most prevailed. Anti-toxin has been suppliėd freely gratis by the Corpora-"tion."

Dr. Stevenson of Rothwell also blamed the weather, among other factors—"Many of the houses" he writes "are old and built upon a clay subsoil, and "the cellars and walls are very damp, and this state of affairs has been "much aggravated by the long continuance of wet and stormy weather. In "addition to the cases notified many others occurred, but were looked upon "by the parents as cases of simple sore throat, and were so slight that the "children continued to run about and even attend school."

At Stocksbridge, Dr. Robertshaw points to two probable causes for the epidemic of diphtheria—"Firstly, carelessness as to the thorough isolation of "cases of the disease; secondly, the bad state of some of the privy-middens "and the soil in their immediate vicinity,"

In the Wortley Rural District, Dr. Anderson had prolonged trouble with diphtheria in spite of his energetic efforts to stamp it out. In several special reports, and also in his Annnal Report, he goes thoroughly into the subject and makes some interesting deductions.

At Hillsborough, Dr. Anderson found that "cases occurred in no less "than 24 different streets, giving an average of three cases per street. The "houses attacked in any single street were rarely contiguous, being often "several hundred yards apart. In only six instances could I trace infection "having been conveyed from one house to its neighbour, and in several "streets containing over 100 houses only one house was affected in the street. " . . . . In a series of 24 families invaded, no fewer than 63 children "remained well. Of the 49 households attacked, in 30 the first case was "that of a child attending school."

Typhus Fever was only notified on one occasion during the year, viz., at Wakefield, in December. Unless specially confirmed, an isolated diagnosis of this kind has no great significance from a public health point of view, and that, apparently, is the opinion of Dr. Wade, since he makes no comment on it in his report.

Enteric or Typhoid Fever was notified 1,625 times in the Administrative County during the year 1900 (see Tables II., III., and pages 36, 37). There were 281 deaths ascribed to the disease, equal to an annual rate of 0·19 per thousand, as compared with 335 deaths and a rate of 0·22 in the previous year.

During 1900, therefore, we had far less than the average incidence of enteric fever, although it is curious to notice that the minimum prevalence (in the month of April) was considerably above the minimum of previous years.

In other words, enteric fever in the West Riding described a medium curve during 1900, having its extremes, in April and October, less marked than usual. Nevertheless, there were a number of very sharp local epidemics, and the reports under review contain numerous object lessons as to the various ways in which the disease can be introduced and disseminated. Besides the annual reports, I have received and dealt with several special reports as to outbreaks of typhoid fever.

Taking an average for the whole County, the disease has attacked about one person per thousand, but the following districts seem to have suffered an undue share of prevalence:—Barnsley, Burley-in-Wharfedale, Drighlington, Featherstone, Gildersome, Hoyland Nether, Morley, Normanton, Pontefract, Wakefield, Wath-on-Dearne, Worsborough, and Wetherby Rural.

On studying the figures for the various districts where enteric fever has been more or less epidemic, I have noticed a striking variation in the relative fatality of the disease. Throughout the Administrative County as a whole, some 17 per cent. of the cases prove fatal, and this proportion remains fairly constant from year to year. Comparing individual districts, however, the case-mortality is seen to vary within wide limits. For example, during 1900 enteric fever was about equally prevalent in Barnsley, Wakefield, and Pontefract, but at Barnsley five per cent. of the patients died, at Wakefield 20 per cent, and at Pontefract 38 per cent. These are the figures for 1900; another year the position might be reversed, for it seems that the relative fatility of enteric fever varies from year to year in the same district. Thus at Keighley during the past five years the percentage case-mortality has been successively 24, 16, 5, 3, and 17. Of course, it is necessary to remember that these observations are based upon comparatively small numbers, and consequently there is some risk of fallacy in making general deductions therefrom.

It would be easy to give pages of extracts from the annual reports setting out instances of the various channels of infection which have been detected during the year. In most districts an outbreak of enteric fever calls forth a thorough overhauling of the sanitary surroundings, and many improvements are promptly effected. There are instances reported where the disease has appeared regularly in the same quarters, apparently because the old conditions have been allowed to remain. Dr. Mitchell Wilson mentions that "two cases "occurred in Drax (Selby R.). One was at the same house where a case "occurred about eighteen months before, and the other at a house using the "same well water and drains as a family where a death from enteric fever "took place in 1899."

At Balby-in-Hexthorpe also, a case followed upon "a similar case in the same house in the previous year." When a more careful examination was made it was found that the subsoil close to the house was polluted by leaky drains which had not been discovered on the occasion of the first outbreak.

Dr. Townsley refers to a case which occurred at Ardsley, where "it was "found that the drain had originally been very badly laid when the house "was built. In order to save the trouble and expense of putting in an elbow "joint at the junction of two pipes one pipe was laid at an angle with the "other, leaving a gaping opening which had been blocked with clay. This in "course of time had become dislodged, thus allowing the sewage to saturate "the soil in the immediate neighbourhood of the houses, causing a very "serious illness in the house affected."

In connection with an outbreak at Gomersall, Dr. H. O. Steele writes: "I am in doubt whether these streets (in the neighbourhood of Craven Lane) "are properly drained at all, and, as far as I can make out, are nearly all "rubble drains."

Offensive privy-middens and faulty scavenging were responsible for not a few outbreaks of enteric fever. At Morley, Dr. S. T. Steele once more expresses his opinion that the unsatisfactory method of emptying the privy-middens is the cause of much of the enteric fever in the borough. He adds that "one of the outbreaks investigated showed that the patients had been "collecting tins from the refuse heaps used by the scavenger."

At Swinefleet (Goole R.) at a house where there had been no previous case and no history of infection, the emptying of the ashpit produced sudden attacks of diarrhœa in two members of the household, followed by an attack of enteric fever in a third.

In some parts of Hebden Bridge the system of pail closets is in vogue and Dr. Lawson in urging their conversion to water closets points out a serious danger which threatens the public health, He writes:—"Typhoid fever is "often not recognised for ten days or more. The typhoid bacillus is in the "pail before the the Sanitary Authority know or have the power of destroying "it. The contents of these pails are removed weekly, or at the end of a "fortnight to the hill tops, spread on the land, and from there are washed down "(by the first rains) into the private water supplies in the valleys. The pails "also are brought back, being partly disinfected by carbolic acid, and if any "bacilli of typhoid remain, which is not improbable, there may be fresh growth "and reproduction of the germs in the closets in which they are deposited, to "infect others in that locality."

Dr. F. J. Burman puts forward an interesting and not improbable theory to account for the epidemic which occurred at Wath-upon-Dearne. He writes—"I firmly believe the fly to have been the means whereby this epidemic was "spread, as I also believe flies to be the cause of so-called ærial diffusions of "small pox. Anyone who will take the trouble to look at one of these privy-"middens in the Summer will find it covered with flies, and on going into the "houses hard by will find the milk basins and other utensils used in the "preparation of food also covered with flies. What more natural than that flies "should carry the microbes from the enteric fever stools placed in the midden "and carefully deposit them in the milk basin, where they would rapidly "multiply."

Many Sanitary Authorities in the Riding have now adopted the excellent plan of providing typhoid-infected houses with special excreta tubs containing disinfectant. The emptying of these tubs is done apart from the routine scavenging, so as to avoid the contamination of the ordinary refuse receptacles. I am afraid that it is not yet sufficiently recognised that the urine of typhoid patients is an important channel of infection, often containing the bacilli in large numbers, and that long after the patient has ceased to be ill.

An outbreak which occurred at Stainland and Elland appeared to be attributable to an infected milk supply, and steps were taken by the Sanitary Authority accordingly.

At Barnsley, also, milk-borne infection was established under the following circumstances, described by Dr. Sadler:—"During the first fortnight in "January seven cases of typhoid fever were notified in a part of the town not "usually so visited, where the houses were without obvious sanitary defects, "and provided for the most part with a water-carriage system for refuse, but "all supplied with milk from the same farm. The existence of typhoid fever "in the farm house was denied, we were told that the milk sold was never "taken into it, and that none of those who prepared it for sale lived in the "house. Finding, however, that one of the family had been ailing since "December 28th, permission was obtained to see him with his medical "attendant, and it was discovered that, though not seriously ill, he had the "eruption and temperature of typhoid fever, and that his sister had been ill "during the first three weeks of December with what was most likely an attack "of the same nature. Moreover, though the milk was stored outside, the "milk cans after washing out were brought into the house in wet weather, and "there had been rain on twenty-three of the previous twenty-eight days. "Arrangements were at once made for storing the milk cans, as well as the "milk, in a separate building. . . . . During the following fortnight, "which is about the period of incubation of typhoid fever, three cases in fresh "houses who had taken the same milk were discovered, one of them a young "man who drank a pint of this milk daily cold, whilst his sisters, who either "drank it boiled or had theirs from another dairy, escaped illness."

Several of the outbreaks of enteric fever during 1900 were caused by polluted water supplies, but perhaps the most serious was that which occurred in December at Bramham (in the Wetherby Rural District), about which Dr. Hargreaves writes as follows:—"The cause of the epidemic appears to "have been the pollution of the water in the public well. Up to the end of "December all the patients (34) had obtained their drinking water from this "well, and the four cases occurring after were traceable to this cause or to "previous cases. No other common cause for the disease could be found, "and until the very end no persons drinking water from the other wells in "the village were affected. . . . Immediate steps were taken to prevent "the spread of the disease from existing cases. The affected houses were "provided with specially constructed tubs for the excreta. These tubs were "removed daily, treated with mercuric chloride and the excreta buried in a "selected spot some distance out of the village. A Laundry was established, "the soiled linen being collected from the infected houses every other day; "the arrangement worked well, and I believe it was much appreciated, and I "certainly think it was of valuable assistance in preventing the extension of "the epidemic. . . . Two nurses were engaged and were of inestimable "value, not only in nursing the sick, but also in seeing the precautionary "measures fully carried out. Abundant disinfectants were provided, a "systematic scavenging of the village instituted, the sewers flushed and "cleansed, and a special supervision kept over the sanitation of the village "generally." Dr. Hargreaves adds, "I am decidedly of opinion that had the "village been in possession of a proper system of sewers, and a water supply

" protected against pollution, this epidemic would not have occurred. It was " an epidemic the like of which might occur at any time in several places in " your district, and which could be prevented if proper sanitary measures " were taken."

Epidemic Diarrhœa (Table II. and page 37), a disease which fluctuates with the summer and autumn temperature, was far less prevalent during 1900 than in any year since 1896. As usual the disease reached its maximum prevalence in August and its minimum in February and March. It caused during the year 973 deaths equal to an annual rate of 0·67, as compared with 1221 deaths and a rate of 0·81 in the previous year.

As mentioned in my last report there has recently been much useful discussion with regard to the classification of deaths from diarrhœa and kindred causes. On issuing the blank statistical schedules for 1900 the Local Government Board wisely set out in detail the manner in which the diarrhœa column should be filled up, so that the above figures may be taken as indicating with more than usual accuracy the mortality (largely infantile) due to infective diarrhœa.

The chief agency in the causation of summer diarrhœa (coupled with the weather) is undoubtedly the existence of decomposing filth, etc , in the midst of the population. Dr. Hillman, of Castleford, affirms that "insanitary "surroundings such as foul privy middens, dirty and unpaved yards, offensive " emanations from sewers and the like are largely responsible for many of " these epidemics." The same is the case at Stocksbridge, where Dr. Robertshaw writes,—"Until we have a complete alteration in our scavenging "arrangements I fear we must expect to have a large amount of diarrhœa." At Barnsley Dr. Sadler found that the great majority of the diarrhœa deaths occurred in houses having the privy-midden system of refuse disposal as compared with water carriage. But even with the midden system a great deal can be prevented by careful and systematic scavenging, as witness Dr. Peck, of Queensbury, who writes,—"I was much struck with the marked diminution "in the number of cases of diarrhœa which came to my notice during the late " summer and autumn, and am inclined to think that this was partly due to " the more efficient emptying and cleansing of the ashpits and privies, " although it is not possible to draw any definite conclusions from one year's " working of the new plan."

Enteritis was returned as the cause of 509 deaths during the year.

Measles, during 1900, was more than twice as prevalent as in the previous year (Table II. and page 37). It caused 791 deaths, thus adding 0·54 to our general death-rate. The disease was epidemic practically all over the Riding during the first seven months of the year, and altogether I received no less than 87 special reports on measles. In 76 of these reports it was stated that elementary schools had been closed in consequence of the prevalence. Such serious hindrance of education is one of the sacrifices we annually make to measles; which is still lightly regarded by the people as a trivial ailment, although Table II. shows that it caused more deaths than scarlet fever and diphtheria together.

This question of school closure is a difficult one, about which there are differences of opinion and sometimes considerable chafing among school-managers, but medical officers who have the responsibility of grappling with an epidemic bear testimony to the success of the measure. Dr. F. A. Storr finds that in the Halifax Rural District "where children attend school from "various parts of the parish, closure is beneficial in arresting the spread of "the disease. It is stated that children when not at school still come in "contact with each other. This is true, but children cannot possibly come "in contact with one another to the same extent as during school hours, "especially when we consider the distances many have to come. The "school may be looked upon as a centre for each parish where children "from all parts congregate during certain hours of the day." Dr. McLean, of Yeadon, is of the same opinion "provided that the schools are closed early "enough, as it is certain that many children from districts free from the "disease will then escape. Those in affected areas are fairly certain to become "infected whether the schools are closed or not, but if the children of some "outside or widely separated districts escape surely the plan of closure is "beneficial. The rest remains with the parents of the children themselves."

Dr. Lumsden, of Pateley Bridge, believes in the prompt closing of schools where measles has appeared, and, to assist this, he urges that there should be "a systematic notification to the medical officer of health by teachers, school "attendance officers and the Guardians in their respective townships." Something of this sort has been established at Handsworth, where Dr. A. W. Scott writes as follows,—"I found that school attendance exercised considerable influence in spreading the disease. Information respecting Measles has "not hitherto been forwarded by the staff of the Board Schools, but I am "pleased to record that the difficulty experienced in this respect has now been "overcome, and that post cards, containing names and addresses of children "absent from school through illness which requires investigation, are forwarded to me by the head school-teachers."

An extract from the Whitley Upper report shews the difficulty of putting down measles even when the early cases are detected. Dr. Tait says, "I saw "the first cases of the epidemic of measles but could not do much good from "the difficulty of impressing the parents with the necessity of isolation. If I "stopped an infected family from going to the day school, I often found they "were attending Sunday school or visiting other houses, and I know of cases "where children were deliberately sent to school with a well marked measles "rash."

Whooping Cough, (Table II. and page 37) was less prevalent in the Administrative County than in the country generally. It was the cause of 340 deaths, equal to an annual rate of 0·23 per 1000. The monthly record shews that there was no period of very high or low general prevalence during the year, though I received eight special reports of local epidemics necessitating closure of schools.

Puerperal Fever, (Tables II., III., and pages 36, 37) was notified on 115 occasions and nearly half the cases proved fatal, there being 53 deaths. The greater proportion of cases occurred during the winter months, but there is nothing of interest in the reports regarding channels of infection.

Phthisis, or Pulmonary Tuberculosis caused 1650 deaths in the Administrative County during the year 1900, equal to a death rate of 1·14 per thousand. These figures are the smallest recorded since the establishment of the County Council and I think we are justified in claiming that there is a gradual but genuine improvement still going on. This is the twelfth annual report prepared for the County Council: the average phthisis rate during the first six years was 1·52, while during the last six years it has averaged 1·28, and during the year under review it was only 1·14.

I have recently been looking up the statistics relating to consumption in the West Riding during the last half century and have endeavoured to show the results in a series of charts. These were exhibited in the Museum at the recent British Congress on Tuberculosis and reduced facsimiles will be found at the end of this report. The diagrams show—

(1) That the rate of mortality from phthisis has been reduced fully one-half during fifty years. (Chart 1.)

(2) That until the last few years the West Riding suffered more than the country generally, but that is no longer the case. (Chart 1.)

(3) That at the beginning of the period there was a far greater death-rate from phthisis among females in the West Riding than among males; but that the converse is now true. (Chart 2.)

(4) That the rate of mortality from phthisis in the manufacturing districts of the Riding is considerably higher than in the purely agricultural districts. (Chart 3.)

(5) That little or no improvement has been effected in the death rate from forms of tuberculosis other than phthisis. (Chart 4.)

I have dealt elsewhere with the action that has been taken by the West Riding Sanitary Committee during the year to still further limit the ravages of phthisis by endeavouring to bring about the establishment of sanatoria for the proper treatment of sufferers and in this and other ways to protect those as yet unaffected.

The annual reports now under review contain many lengthy and important references, shewing that the local medical officers are all enthusiastic in the work which lies before them in regard to tuberculosis in its several phases. It is significant that the majority of the references emphasise the sputum of phthisical patients as the chief source of danger. Dr. A. G. Webster, reporting on the Colne Valley, writes "There can be no doubt that in your districts "many of the instances of the past, where whole families became the victims "of this scourge, were contributed and brought about by children continuing "to live in dwelling-houses where one or both parents having succumbed to "this disease, had permeated the surroundings with the germs of Tubercle, "to which, (in the absence of any attempt to destroy) the remaining members "of the family presented only too ready and suitable opportunites for the "futher development and spread of the disease."

At Heckmondwike, Dr. H. T. Broughton is desirous that "all expectoration from the lungs should be burnt, or disinfected and destroyed. It "should not remain on floors or in receptacles, or on any articles whatever, "for surely the germs will attack someone susceptible to their influence. "All yards and streets about houses should be paved, asphalted, or macadamed, "to prevent dampness and moisture arising from the soil."

Dr. Martin, at Brighouse, is doing a good work in the disinfection of houses where phthisical patients have lived and died. He reports as follows,—"It is now the exception to receive a refusal to my request to allow the "Sanitary Inspector to disinfect habitations which have been infected by "phthisical subjects.......At the sanitary offices we have a list of houses that "have been occupied by persons suffering from infectious diseases, and also of "persons *dying* from phthisis. We may not get to know of all patients "suffering from the latter complaint, because, as yet, it is a non-notifiable "disease, and people so affected do not care to make the fact known to the "public. Very little trouble would be caused by residents or new comers to "the district making enquiry at the sanitary offices as to the desirability of "becoming tenants of houses on which their choice fell. By this means, at "times, a source of further infection might be avoided—a house formerly "inhabited by a phthisical patient, and perhaps where our offer to disinfect "has not been accepted, would in this manner have to be so disinfected to our "satisfaction before the would-be tenant cared to enter into occupation. Good "would be done in this direction, and every aid towards lessening the destructive power of phthisis is worth encouragement."

There is a pretty general feeling among medical officers in favour of the compulsory notification of phthisis and the treatment of sufferers in proper sanatoria. Dr. Beattie, of Soothill Upper, aptly reminds his Authority that, while sanatoria are useful where cases have declared themselves, airy and healthy homes are more useful still in *preventing* them. Dr. Scatterty expresses a similar thought at Keighley,—"By all means let us have sanatoria for existing "cases, but let us remember also that prevention is better than cure, and the "best way to help the crusade against Tuberculosis is to remedy the evils "which favour its production."

Dr. R. E. Williamson reporting to the Wharfedale Rural Council mentions that "fifty years ago in a report by Dr. Spence on Wharfedale, he "stated that 30 per cent. of the deaths were due to phthisis, and if other "tubercular diseases were also included probably the total would be nearly "doubled whereas now the death rate from phthisis for our district is only ·8 "per 1000, and from all tuberculous causes 1·61 per 1000."

Other Tubercular Diseases. Although phthisis claims our chief attention on account of the tragic manner in which it finds its victims among our youth and manhood, there are other forms of tuberculosis which annually destroy many lives, chiefly infantile. During 1900 there were in the Administrative County 788 deaths entered in the column of "other tubercular diseases." The majority of these would doubtless be deaths of little children due to tabes mesenterica and tubercular meningitis, but I have no separate figures of these. The first-named (consumption of the bowels) has hitherto been largely attributed to infection conveyed through milk which Dr. Koch has recently pronounced to be of very rare occurrence. Whether this be so or not, it is curious that we have effected no reduction in the mortality from this form of tubercular disease, while phthisis has decreased considerably.

The Respiratory Diseases of Bronchitis, Pneumonia and Pleurisy have been grouped together in the mortality returns of previous years. This year, I am for the first time enabled to differentiate between these three death-causes and I give the figures below. For the sake of comparison with past years, however, I may here state that the total deaths were 4696, equal to a death-rate of 3·23 per thousand,—practically the average rate for the County.

Column 21 of Table I. (see end) shews that there is considerable difference in the respiratory death-rates of the various Sanitary Districts, and on examining the statistics for a number of years it is evident that some localities in the Riding are regularly noticeable for their excessive mortality from chest diseases. It is also worthy of note that most of these districts are situate south of the Aire-Calder watershed.

Bronchitis was registered as the cause of nearly three-fifths of the total respiratory deaths. I have not got out the ages of the the 2755 persons who died of bronchitis during the year, but I estimate that fully half of them were under five years of age.

Pneumonia was chronicled as the cause of 1874 deaths, - (a number larger than that attributed to phthisis.) This disease in some of its phases is undoubtedly of an infectious character and therefore preventible. Its greatest prevalence occurred during the first half of the year, when epidemics were experienced at Wombwell, Hoyland Nether, Rotherham, Otley, and other places.

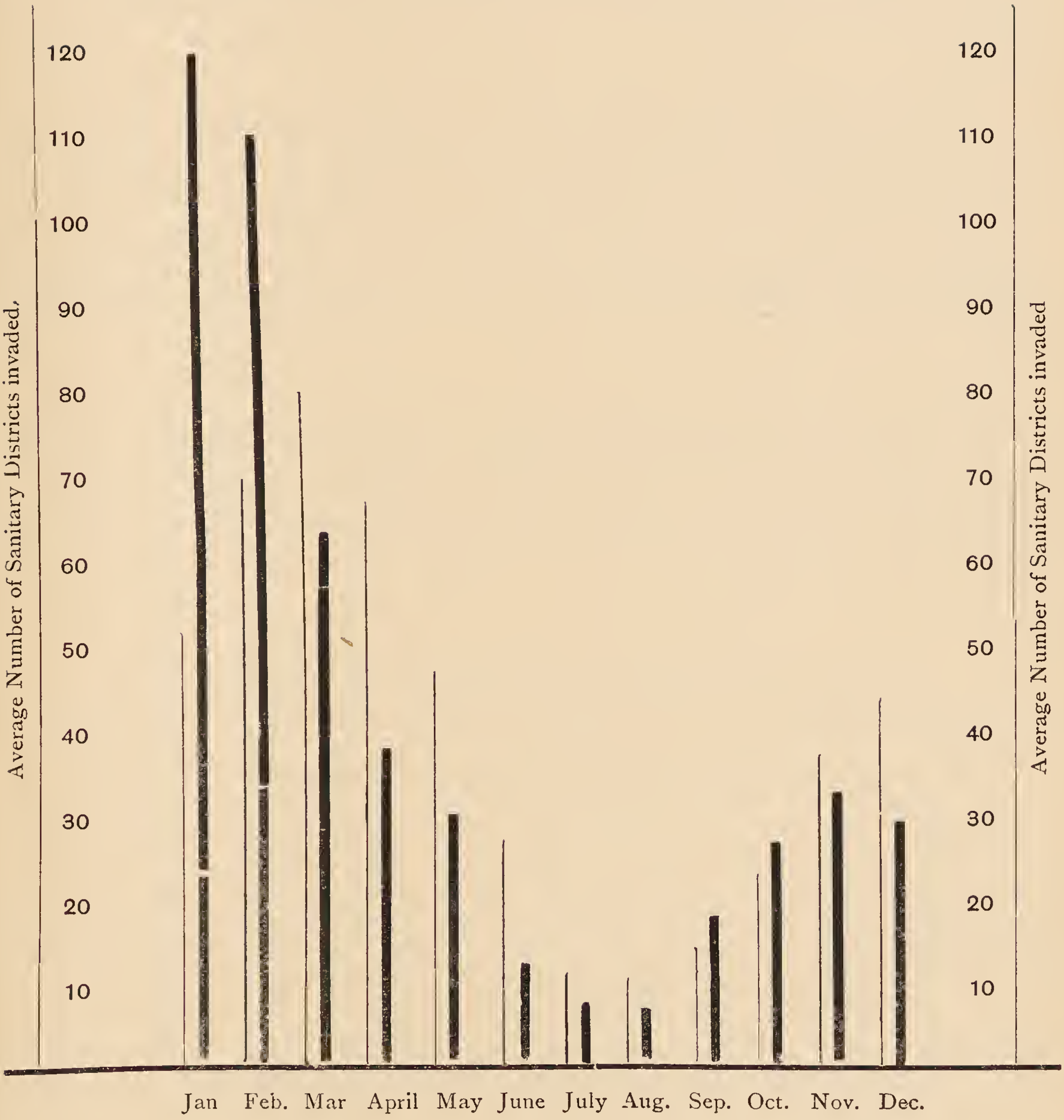
Pleurisy is said to have caused only 67 deaths during the year. Little significance attaches to these figures standing alone because pleurisy is frequently the natural concomitant of the foregoing respiratory complaints.

Influenza was again excessively prevalent in the West Riding during the spring of 1900. This year, for the first time, I am able to give the number of deaths for which the disease was directly responsible, viz. 594, equal to a death rate of 0·41 per thousand. From the monthly figures given on page 37 it will be seen that Influenza reached a very high maximum in January and subsided to a low level in July and August. The following chart makes a rough comparison of the Influenza curve of 1900 with its average course.

INFLUENZA IN THE WEST RIDING.

Thin columns = average of 9 years, 1891–9.

Thick columns = the year 1900.



Cancer. For several years past I have made a special effort to obtain figures shewing the mortality from cancer in the West Riding, because if we hope to bring it within the category of preventible diseases it is a first essential that we should learn all about its distribution amongst us and the circumstances which favour its appearance. In column 21 of Table II. (see end) will be found the number of cancer deaths which occurred in every sanitary district of the Riding. This is the first year I have been able to give such complete figures and it would not be safe to draw any general conclusions until the statistics for a number of years are available. The total number of deaths from cancer during 1900 was 988, equal to an annual death rate throughout the Administrative County of 0·68 per thousand. It would be a good thing if a little more of the enthusiasm displayed lately in regard to the prevention of consumption could be diverted to the study of this awful and apparently increasing disease, as was wisely suggested by the King on a recent occasion.

Other Tabulated Diseases. The table of deaths at the end of this Report (Table II.) is differently arranged this year owing to the statistical changes already referred to. It will be found to include columns for important death-causes which have not hitherto been separately extracted,—for example Alcholism and Cirrhosis of Liver (190 deaths), Venereal Diseases (42), Premature Birth (932), Diseases and Accidents of Parturition (144), Suicides (128).

Seasonal Prevalence of Disease. The two following tables are compiled from the County Notification Summaries which were issued every month by the West Riding Sanitary Committee. Their only value at this time is to show the curve which the various diseases followed from month to month during 1900.

Monthly Totals of Reported Cases 1900.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Small Pox ...	2	—	—	—	1	2	1	—	—	—	—	—	
Asiatic Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
English Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	139	113	108	128	120	103	126	103	200	150	204	222	171
Croup ...	11	10	17	14	8	4	6	4	5	9	12	11	11
Erysipelas ..	127	121	129	88	97	72	85	81	83	98	115	116	121
Scarlet Fever ..	602	499	593	569	656	541	640	561	689	883	816	694	774
Typhus ...	—	—	—	—	—	—	—	—	—	—	—	1	
Enteric Fever .	108	80	107	68	81	70	67	158	188	253	195	227	160
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever	5	3	3	—	2	3	—	3	—	1	2	3	2
Puerperal Fever	13	6	20	7	8	7	3	6	9	8	11	6	10

Monthly Totals of Districts Reporting, 1900.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Small Pox ...	1	—	—	—	1	2	1	—	—	—	—	—
Asiatic Cholera...	—	—	—	—	—	—	—	—	—	—	—	—
English Cholera .	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ..	34	30	37	41	36	36	43	30	43	40	45	45
Croup ...	9	7	13	9	7	3	5	4	5	7	10	10
Erysipelas ...	65	61	68	52	55	38	51	44	54	53	61	60
Scarlet Fever ...	96	85	88	85	88	96	93	91	87	95	99	97
Typhus ...	—	—	—	—	—	—	—	—	—	—	—	1
Enteric Fever ...	46	36	50	45	43	39	34	65	75	86	72	73
Relapsing Fever..	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever..	3	2	3	—	2	2	—	3	—	1	1	3
Puerperal Fever..	11	6	18	7	7	7	3	6	9	8	9	6
Measles ...	50	41	44	44	44	56	55	38	24	37	30	27
Whooping Cough	20	16	20	22	20	23	25	18	28	19	26	27
Diarrhœa ...	5	3	5	8	14	23	56	69	54	27	7	7
Pneumonia ..	51	45	38	46	49	43	23	24	27	33	26	35
Influenza ...	121	112	65	41	32	15	9	9	19	29	34	31
Chicken Pox ...	12	7	10	8	8	12	11	4	6	7	8	12
Mumps ...	5	5	7	9	8	8	10	7	6	10	17	9
German Measles	5	6	11	10	4	8	4	3	1	3	2	2
Lead Poisoning...	1	1	1	1	—	1	2	3	1	5	1	2

Isolation of Infectious Cases in Hospital.—The total number of persons removed to hospital during 1900 was 3292 as compared with 2834 during the previous year. Expressed relatively to the number of persons suffering these figures are 29·0 and 29·6 per cent. respectively, the slight fall in the ratio for 1900 being caused by the unusual prevalence of diphtheria, which unfortunately is not isolated to the same extent as scarlet fever. Taking the latter disease alone, there was considerable improvement in the proportion of cases isolated, as already mentioned on page 24.

Among the reports there are many lamenting the absence of proper hospitals, though in most cases it is added that arrangements are under consideration for supplying the deficiency. During 1900 many of the well-equipped permanent hospitals of the Riding were full and had to refuse further cases. In consequence several extension schemes are on foot.

In six of the reports it is recorded that the Sanitary Authority, being unpossessed of hospital accommodation resorted to the expedient of providing nurses to attend the infectious cases at their homes with a view to aiding their recovery and at the same time preventing the spread of disease. The cost of this was £161 15s. 6d. In several other districts hurried arrangements had to be made with neighbouring Authorities to treat cases in their hospitals at a weekly charge payable by the Council.

The full value of isolation hospitals will never be completely felt until there is a ready co-operation of all concerned to secure the prompt isolation of the *first cases.* Where this is not done the hospital may be filled with later cases and yet be of little practical value in arresting the spread of disease.

It is pleasant to note in the reports for 1900 references to the increasing confidence of the public in hospital treatment, and consequently less objection by parents to the removal of children to hospital. Dr. W. L. Allott, in reporting on Hoyland Nether says,—"We have never before been able to "send any children away (to the hospital) owing to the great dread felt for "the hospital by the parents, and pushing matters to the extreme is not "always wise. However, we have now partially overcome this dread, and "should it be needful in the future, I am hoping that we shall not have the "same difficulty again. Home isolation in the majority of cases, in a district "like ours, is simply non-existent." Similarly at Hipperholme, Dr. Davidson writes,—"In my report for the year 1899, I pointed out that a prejudice "existed in the minds of many parents against the removal of their children "to hospital, but I think I am justified in saying that this prejudice is "gradually being swept away. The able manner in which the hospital is "conducted, and the care and attention which are given to the patients, are "sufficient guarantees to the public that nothing will be left undone to secure "for the inmates every comfort as well as the best scientific treatment." In the Hemsworth Rural District, also, "little difficulty is now experienced in "the removal of patients from their homes. The public confidence in the "treatment of patients admitted to the hospital has only been won by the "constant care, attention, and kindly consideration which each patient "receives." Dr. Coleman adds that "without this means of isolation it "would be idle to speculate to what proportions the outbreaks of infectious "disease would have reached."

Similar praise of hospital isolation is found in many reports ;—Dr. Robertshaw, in reporting to the Stocksbridge Urban Council, writes :—"Some "critics might say that notwithstanding your isolation hospital you have had "epidemics galore. I am perfectly willing to admit that, but I hold that "whereas we have been chastised with whips, without the hospital we should "have been chastised with scorpions."

It is to be hoped that some of the sanitary authorities of the Wakefield Union will profit by the experience of Sandal during last year. This Urban Council have only a temporary iron small pox hospital (2 wards, 12 beds) put up in 1893, during the small pox epidemic. They greatly need some provision for isolating scarlet fever and other diseases, and to this end negotiations have been carried on for a joint hospital with neighbouring authorities, but, as Dr. Williamson writes, "it seems as if sanitary authorities scarcely realized "the great advantages of union for this purpose, both from a sanitary and a "financial standpoint." During 1900 Sandal was visited by an epidemic of scarlet fever which proved unusually persistent. In their dilemma the authority utilized the temporary hospital intended only for small pox, with results which Dr. A. S. Williamson reports as follows: —"When cases began "to be discharged it was found that fresh cases followed in the houses to "which they returned, and as this happened even where every care was taken

“ with the scanty means of disinfecting at our disposal, it became more and
“ more evident that the attempt to use the hospital for scarlet fever, though
“ probably justified by the circumstances, was futile, and that the hospital
“ itself was becoming a focus for the spread of the disease, and in October,
“ in which month the epidemic reached its height, I had to advise you to that
“ effect.” . . . . “ All the cases removed to this hospital received
“ every care and attention from the caretakers, who were unwearying in their
“ attendance on them, even when there were 17 cases at once to nurse and
“ feed. Complaints were made from time to time of carelessness on their
“ part in various ways with regard to infection, and though some of them
“ were well grounded and they had to be reprimanded, one has to remember
“ that they were entirely untrained in the work, and that some of their faults
“ were really mine for expecting more knowledge from them than they could
“ reasonably be expected to possess.” In another place Dr. Williamson
writes :—“ I have already said enough in dispraise of this hospital, but that
“ is from *its having been put to a use for which it was not intended or suited.*”

Disinfection of infected clothing, &c., is usually accomplished by means of a steam disinfector at the isolation hospital. Where such an apparatus is not available resort is made to less reliable processes, or else to the effective but wasteful method of burning. The latter course was adopted during 1900 by some 21 Authorities, and the amount paid out of rates as compensation for the articles destroyed was £44.

With regard to the disinfection of rooms the method which is almost universally adopted in the West Riding consists of fumigation by sulphur dioxide, generated by burning rock sulphur in the sealed-up room. In a few cases a slightly different method is employed and in about a dozen districts the recently introduced formaldehyde has been tried, either by fumigation or by spraying the walls with an aqueous solution. Perhaps the old-fashioned sulphur method is as useful as any, especially when it makes it necessary for the tenants to subsequently undertake a thorough scrubbing and cleansing of the apartment, which of itself is a reliable safeguard.

Water Supply.—The amount of good work done in the West Riding during 1900, in the way of providing new supplies or extending and improving old ones is, I think, unprecedented, and is certainly too extensive to be chronicled here in detail. No less than 67 of the reports record satisfactory progress in this important branch of public health work, and it is particularly gratifying to note the numerous instances of public supplies having been extended to isolated rural villages and hamlets hitherto dependent upon shallow wells and other doubtful sources. A few of these are quoted as examples :—

Great Ouseburn R. ...	Eight new bore wells sunk.
Halifax R.	New works at Greetland and Norland.
Hemsworth R. ...	Scheme for Kirk Smeaton and Little Smeaton completed.
Pateley Bridge R. ...	Low Laithe supplied.
Ripon R.	Extension to Clotherholme, Grewelthorpe, Quarry Moor, and Wormald Green.

Skipton R. ...	... Scheme for Eastby carried out.
Wetherby R.	... Public supply carried to Wetherby, Boston Spa, Collingham, East Keswick, Linton, Bardsey, Thorparch.
Wharfedale R.	... Breary additionally supplied.
Wortley R. ...	... Extension to Worral, Holdsworth, Stacey, Loxley.

The above is by no means an exhaustive list of the years work, but it serves to show that the importance of proper water supplies to our villages, which has been constantly urged by the West Riding Sanitary Committee, is now being recognised on all sides. During 1900, many miles of service pipes and mains were laid in the West Riding, and hundreds of houses were newly supplied with water under constant pressure.

In spite of this activity there are still many localities in the Riding where the public health is jeopardized owing to the absence of a reliable water supply. I have prepared a list of inadequacies mentioned in the annual reports under review. Some of them may possibly have been remedied by this time, but special attention to be directed to those instances in the following list where the name of the district is printed in italics. In these cases the inadequacy referred to has been mentioned by the medical officer of health in previous annual reports, presumably without effect.

Sanitary District.	*Inadequacy.*
Barnsley Rural	... At Brick Row, Woolley Colliery
Birkenshaw	... At Nutter Lane
Doncaster Rural	... Adwick on Dearne
Emley ...	... In dry weather
Gomersal ...	... At the Mount
Gunthwaite	... 8 or 9 houses
Hipperholme	... At top end
Holmfirth ...	... Hill House, Longley
Hoyland Nether	... Hoyland Common
Kirkburton	... Linfit Lane top
Kiveton Park Rural	... Wales, Thorp, etc.
New Mill ...	... Hade Edge, Hill Top, Fulstone, Snowgateshead, Paris, Scholes, Hepworth, and Victoria
Normanton	... Mains too small
Oxenhope ...	... Shaw
Penistone ...	... Cubley
Penistone Rural	... Thurgoland, Crane Moor, Huthwaite Lane, and Oxspring
Pontefract Rural	... Ferryfrystone, Brotherton, and Fairburn
Rawdon ...	... Larkfield
Rawmarsh ...	... Upper Haugh and Sandhill
Ripon Rural	... Copt Hewick, Galphay
Sedbergh Rural	... Hall Bank
Shelf ...	... Riding Hill

Sanitary District.	*Inadequacy.*
Shelley ...	... Shelley, Woodhouse, and Barncliffe Lane
Skipton Rural	... Halton East, Appletreewick
Slaithwaite...	... Hill Top, Brine Place and Carters
South Crosland	... South Crosland Village and Armitage Fold
Soyland ...	... Holly Royd
Springhead	... Austerlands
Thurstonland	... Thurstonland Village
Wetherby Rural	... In many parts
Wortley Rural	... At Wharncliffe Side, Upper Grenoside, and Oughtibridge

Whenever it is suggested that a rural parish or country town is in need of a new water supply, it almost invariably happens that opposition is aroused on the ground that what has served hitherto will do for the future without any needless expense. This attitude is frequently encountered by sanitarians in the West Riding, to whom the two following extracts may be interesting as affording some justification of progressive action in the matter of rural water supply,—In the report for the Great Ouseburn rural district, Dr. C. E. Lownds writes,—"Poppleton has now got a capital supply of "excellent water by means of two bore wells sunk at a moderate cost, the two "cost £100. We had to contend with a good deal of opposition to the sink-"ing of these wells, but now from what I hear the inhabitants of Poppleton "are quite satisfied that the money has not been spent needlessly."

In the Wetherby rural report Dr. Hargreaves observes :—"when in 1894 "I first called attention to the faulty water supply of Wetherby I got into "serious trouble, and was informed from many quarters that I was the only "person who thought so. It is interesting to see that within six months of "the Company's water being available, out of 360 householders in the town, "254 applied voluntarily to be supplied with the water."

In many of the hilly districts of the West Riding there is a natural amplitude of water, but, owing to the absence of means of protection and storage there is often scarcity in the midst of plenty. Thus, at Rishworth,—"the fault is that in many of the cottage houses the water supply is not laid "into the houses, but has to be fetched from a well or spring, and in some "cases a considerable distance. This is an evil" writes Dr. Mercer, "which "ought to be remedied, and which it would be advisable for the Council to "consider carefully." At Thurstonland "all the village is supplied from wells "of running water or house wells, and this method of supply is open to many "objections, and subject to so much contamination from surface water, &c." Dr. A. MacGregor adds that "during dry weather in the summer the supply "is scarcely sufficient to meet the requirements of the population of Thurston "land." At Penistone there were complaints as to the discoloration of the water. The Penistone Rural Council have arranged to obtain a supply for High Hoyland from the mains of the Denby Authority. In the report for the latter district, however, Dr. D. A. MacGregor refers to their water supply as follows,—"towards the end of November and early in December, complaints "were numerous as to the quality of the water supplied to the lower parts of "the district, from the Moistholme reservoir. As is well known, this supply "is obtained from a catch-drain running under cultivated and tilled land at "Moistholme, and on Denby Common. The supply was at once cut off and a "sample of the water was sent to the public analyst. His report was "unfavourable, suggesting contamination from the manuring of the land. "Such being the case, it seems to me that the land in the vicinity of the catch "drain should be farmed as pasture only, and should not be put under tillage. "Previous analyses have shown the water to be quite satisfactory, but, of "course, danger of contamination will naturally arise, unless steps are taken "to ensure immunity from pollution." In the Pontefract rural district, also, and in other places dependent on local supplies it is suggested that the manuring of the fields with all kinds of rubbish is a menace to the public safety by reason of contaminating the village supplies."

In the flat districts towards the East of the Riding drinking water is perforce obtained from shallow wells or more pretentious borings. At Thorne, where the supply is notoriously bad, "no extension or improvement has taken "place during the year." At Tickhill "it is usually considered sufficient if "the suspected wells are cleaned out," but, says Dr. J. Mitchell Wilson, "such work scarcely reaches the source of the pollution which is in the soil "all round the well." In the Selby report Dr. Wilson expresses his concern lest the proposal of Leeds to treat their sewage on land overlying the geological strata from which Selby's water supply is derived should in the future cast a doubt upon the purity of such supply. The Rotherham water is apparently not yet satisfactory, for Dr. Robinson is of opinion that "although "much has been hitherto done in order to safeguard the supply, there still "remains, as a result, a drinking water which cannot, by any means, be "considered wholesome."

At Hoyland Common there is an inadequacy of water which has been mentioned year after year by Dr. Allott in his reports to the Hoyland Nether Urban Council. Surely they cannot longer delay action after reading the report for 1900 which emphasises the condition of affairs by relating that "four miners actually washed in one and the same bowl of water after returning from work, the mistress of the house skimming the soap and coal-dust "from off the water after each washing to make it a little more endurable for "the next." It is not surprising after this to read in Dr. Allott's report that the above locality affords absolutely the worst figures as to sickness and mortality although situated 500 feet above sea level and consisting in a goodly proportion of new property.

Lead Poisoning, due to drinking water, is now comparatively seldom met with in the West Riding, chiefly because most of the public supplies which were liable to dissolve lead are subjected to preventive treatment at the works, and also, no doubt, because in places where the risk remains the public are by this time aware of it and adopt precautions for themselves. Nevertheless, isolated cases of plumbism occurred during 1900 in some half dozen districts, while at Yeadon Dr. McLean states that there were 13 in all.

In the following districts it is recorded by the medical officer that the drinking water has the power of acting upon lead to a greater or lesser degree, but it is not suggested that cases of illness have arisen in consequence, except at Gildersome, Halifax R., Ossett, Shelf, Todmorden and Yeadon.

Sanitary District.	*Action on Lead.*
Baildon	Slight.
Barnsley	Slight.
Batley	Slight.
Clayton West	Yes.
Darton	Slight.
Gildersome	During summer months.
Golcar	Yes.
Guiseley	Only when augmented from Yeadon.
Halifax R.	Varies.
Handsworth	Very slight.
Hebden Bridge	Very slight.
Heckmondwike	Only after standing in pipes.
Hunslet R.	At Middleton, after standing.
Netherthong	Very slight.
Ossett	Less marked.
Rawdon	Marked.
Rishworth	In some cases.
Royston	Slight.
Saddleworth	Slight.
Shelf	Very slight.
Shelley	Yes.
Shepley	Yes.
Shipley	Slight.
Skelmanthorpe	Yes.
South Crosland	Very slight.
Southowram	Slight.
Todmorden	In many places.
Worsborough	Slight.
Yeadon	Yes.

During the year I have personally detected lead in solution in samples of water from Yeadon, Middleton (Hunslet R.) and Netherthong. With regard to the first named supply Dr. McLean reports as follows,—"Unfortunately "the action of the water on the lead service pipes continues. I have "examined 75 samples during the year. In one case I found the quantity of "lead as low as $\frac{1}{50}$th part of a grain per gallon. In the other samples the "amounts varied from $\frac{1}{20}$th to a maximum of $\frac{3}{5}$ths of a grain, this latter "excessive amount being present in a sample of water which had stood twelve "hours in the pipe . . . . . . Thirteen cases of plumbism have come under "my notice during the year, two cases occurring in one house and three in "another." Two other reports make reference to the same water supply, viz., Wharfedale Rural—"The water from a large house in Hawksworth "which is supplied from the Yeadon Company whose mains pass through the "township was found to contain 0·18 grains of lead per gallon. As this is a dangerous quantity the lead service pipe was replaced by a blocked tin one.” Guiseley—“Four samples have been analysed for the presence of lead, two from the Guiseley Moor supply were found to be free from lead, the other two from the Yeadon supply contained lead, the first 0·378 grains per gallon and the second 0·34 grains. This latter was the water used at the station house, where there was a length of 50 yards of lead piping. I wrote to the Company pointing out the danger incurred by the use of the lead service pipe, and they replaced the lead pipe by a blocked tin pipe.” It is only fair to say that the Yeadon Water Co. after pressure from the Local Authority and from the County Council are understood to be experimenting with a view to the treatment of the water to prevent its action on lead.

As usual there were one or two cases in the hilly districts where a private supply of soft upland water became a source of mischief. Thus at Fixby, Dr. F. A. Storr reports,—“Several cases of lead poisoning were reported to me from Moor Hey, Fixby, in August. The water supply to this house comes from a spring in Fixby Wood, about a quarter of a mile away. The water is first conveyed in iron pipes to a trough about 150 yards from the house, and from thence in lead pipes. On examination lead was found to be markedly present. The lead pipes were taken up and replaced by iron pipes.” At Todmorden, also, Dr. C. W. Thorp states that “lead contamination is a frequent danger to private water supplies from the often long distance the water has to travel through lead pipes.”

Drainage, Sewerage, &c.—After water supply, perhaps the next sanitary essential is proper means of receiving and carrying away the waste liquids produced by the community. In a county like the West Riding the need for relaying or extending sewers and drains is an ever-present one, and the degree of activity yearly manifested in this work shows no sign of abating as will be seen from the table of loans on page 63.

Among the annual reports for 1900 no less than 86 make reference to the construction of new sewers of varying length, and there is no doubt that much good work is being done. In spite of this the following list of outstanding requirements is no less formidable than in previous years. The duty of deciding where works of drainage or sewerage are required does not technically devolve on the medical officer, yet he cannot uphold his various responsibilities without observing and pointing out the most pressing requirements under this head. I give below a list of the inadequacies which are referred to in the reports under review, and I have adopted the method of printing in italics those items which have figured in previous years' reports :—

Sanitary District.	*Inadequacy.*
Altofts	Foxholes Lane.
Baildon	Green Lane.
Barkisland	Mill Fold.
Barnoldswick	At Bancroft and Gillions.
Birkenshaw	Nutter Lane.
Bishopthorpe R.	Dringhouses.
Drighlington	Adwalton Lane, Cocker Wall, New Lane Top, and Back Lane.

Sanitary District.	*Inadequacy.*
Featherstone	Principally Wakefield Road. New scheme in hand.
Gildersome	Several.
Goole	Mount Pleasant.
Gunthwaite	Yes.
Handsworth	The Croft, Hollinsend.
Haworth	No complete scheme.
Hemsworth R.	Upton, North Emsall, Kirk and Little Smeaton and Brierley.
Holme	No system.
Holmfirth	Brownhill Lane, Totties, Horsegate Hill, New Mill Road, Shaley Wood Bottom, &c.
Honley	Hall Ing, Oldfield.
Horsforth	Newlay.
Hoyland Nether	Upper Hoyland, Shortwood, Skiers Hall, Old Jump, part of Milton.
Hoylandswaine	Rubble drains in many parts.
Hunslet R.	Belle Isle, Middleton and parts of Newsam Square, Halton.
Keighley Borough	Hainworth, New Road Side, Braithwaite, Westgate.
Kirkburton	Under consideration.
Kiveton Park R.	Firbeck and Woodsetts.
Knaresborough R.	In several villages.
Leeds R.	Seacroft Green and old part of Roundhay.
Liversedge	Both old and new streets require sewers.
New Mill	Scholes, Paris, Jackson Bridge, Hepworth, Hade Edge.
Normanton	Snydale Lane.
Ossett Borough	Gawthorpe and Healey.
Penistone	Bridge End.
Penistone R.	Crane Moor, Thurgoland, Silkstone.
Pontefract R.	Ferryfrystone, Brotherton, Burton Salmon, Hensall, and Monkfrystone.
Pudsey Borough	Fulneck, Smalewell, Mount Pleasant Road, The Lanes.
Queensbury	Yes.
Rotherham Borough	Yes.
Rotherham R.	Wickersley, Bramley, Maltby, Treeton, Catecliffe, Thrybergh and Ulley.
Rothwell	Several outlying portions. Scheme in hand.
Saddleworth	Junction and Diggle.
Shelf	Yes.
Shelley	Yes.
Shepley	Yes.
Skelmanthorpe	Yes.
Southowram	Brookfoot.
Soyland	Spring Street.

Sanitary District.	*Inadequacy.*
Stainland ...	... Yes.
Stanley ...	... Lee Moor and Stanley Ferry.
Thorne R. ...	... West end of Stainforth and East end of Hatfield.
Thurlstone ...	... Several outlying districts.
Todmorden Borough	... In many parts.
Wakefield R. ...	... Part of Crigglestone and Warmfield.
Wetherby R. ...	... Several parts.
Whitley Upper	... All inadequate, with few exceptions.
Wortley R. ...	... Wincobank, Sheffield Lane Top and Oughtibridge.

After such a lengthy list of deficiencies it is impossible to give many specific quotations from the reports relating to sewerage and drainage, but the following deserve attention :—

THURLSTONE. —“ The sewage still runs down the road near School Wells, “ and in other parts it often stands round the foundations of the houses, “ owing either to bad connections or to there being no proper drains to take it “ away.”

RAWMARSH.—“ Nothing has been done to ascertain the real state of the “ Rotherham road sewer, or to improve the inspection chambers referred to in “ my reports for 1897 and 1898, and there is still much need for ventilating “ shafts for many of the sewers.”

ARDSLEY EAST AND WEST.—“ Emanations from the street manholes “ continue to be most offensive, and the only remedy lies in supplying ventila- “ ting pipes. Complaints have been frequent, more especially after rainfall.”

HORSFORTH.—“ The ventilation of the sewers is by means of roadway “ grids, but in many places these have been fastened up, making the ventilation “ defective. To avoid this, I would advise that all the roadway grids be again “ opened, and if in any place it is found that this is impracticable, that “ elevated ventilators be erected instead. One elevated ventilator was erected “ some three or four years ago at the top of the North end of Broadgate Lane. “ Although inartistic in appearance, it has been a distinct success, and it is “ decidedly preferable to the stenches that previously affected that part of the “ district.”

With regard to the details of individual house drainage, Sanitary Authorities generally would do well to follow the example of Keighley where no new house is passed as fit for habitation unless the drains are certified as having stood the water test. If it was not for this precaution, Dr. Scatterty fears that “ the modern house with its complex system of water pipes, waste pipes, “ soil pipes, and the like, would, in the course of a few years, constitute a “ veritable man-trap for the unwary householder.”

Scavenging, also, should occupy a position of first importance among the duties of the Sanitary Authority, for it cannot be neglected without serious consequences to the public health. In only 21 of the urban districts of the Riding is the work of removing the household waste matters and excremental refuse left to be done by the owners and occupiers practically as and when they like. This usually means that the scavenging is postponed until the receptacles (often far too capacious) are overflowing with the accumulations of months. In these circumstances the emptying is an operation to be dreaded.

In an increasing number of districts, however, the scavenging is done at the public expense either by the permanent staff of the Sanitary Authority, as in the majority of the urban districts of the Riding, or by some responsible contractor who undertakes to do it for the Council. Among the rural districts, also, there has been a great improvement lately, for I find that in 22 out of the 29 rural districts public scavenging is in vogue for the more populous parts.

In the Annual Reports for 1900 there are many proofs that the best results are only obtained when the work is done directly by the servants of the Authority. Thus at Rawmarsh, Dr. J. Picken reports to the Council as follows,—" During nine months of the year nightsoil and rubbish have been " removed by your own men under the superintendence of the Sanitary " Inspector and a foreman. I cannot remember a single complaint having " been made to me by a householder during that time, whereas when the work " was done by contract complaints were a daily occurrence, and were justifi- " able. Owing to the care taken in dealing with rubbish, farmers are now " applying for the night-soil for their land, and it is being fairly well got rid " of in that way." In the Ardsley East and West District, also, the night-soil has been colleted by the Sanitary staff and sold to farmers, but Dr. Ewing objects to the farmers depositing " piles of manure in fields within a few feet " of the highroad and in some cases in close proximity to dwelling-houses." The following extract from Dr. W. Foster's report shows how they avoid this difficulty at Shipley,—" The refuse collected is now effectually disposed of by " the New Meldrum Destructor, which by means of a dynamo and motor, " furnishes power. This power crushes the clinker for the bacteriological " beds, pumps the sewage on the same, and also furnishes electric light. " Thus the waste material, formerly such a difficulty with us, has been con- " verted into a new factor in sanitary progress."

At Honley the work is done by the Council's staff on a regular system. " The district is divided into sections which are worked through in regular " order at fixed intervals. One horse and cart are constantly engaged in " closet emptying, and the Inspector of Nuisances is empowered to employ " another if he finds he is getting behind with the work. Tubs are removed " in a covered van. The Council's carts are horsed by the local farmers. All " tubs and the nightsoil from the more central parts of the district are carted " to the depôt at Long Lane, whence the excrement is sold as manure." At Rothwell, too, all the ashpits are numbered, " and a record is being kept not " only of the number of times each ashpit has been emptied, but of the " condition each ashpit was at the time it was emptied." Some such system appears to be needed at Penistone, where, according to Dr. J. A. Ross, there were many complaints of non-removal, although the work is in the hands of the District Council. Scavenging at Drighlington has been done by the sanitary staff at a slightly increased cost, but Dr. Forsyth affirms that it has been done in a much more satisfactory manner. At Denholme public scavenging is in operation, and Dr. J. Jackson aptly remarks in his report that "each dwelling has its destructor in the house fire, where refuse of all "kinds could be effectually destroyed." Altofts is one of the few urban districts which have no public scavenging, and Dr. Mackenzie properly regards this as unsatisfactory. At Stainland the work is done by contractors "in a "very perfunctory manner." There are many complaints, and Dr. A. E. Woodcock thinks the nightsoil is allowed to remain about too long after the receptacles have been emptied.

Closets and Refuse Receptacles.—The old-fashioned privy midden of large, deep and open construction is gradually disappearing and being replaced by more sanitary contrivances. The reports for 1900 make mention of 3780 closets having been newly erected or reconstructed during the year, and of these 54 per cent. were on the water-carriage system, the remainder being some approved form of dry conservancy. It is satisfactory to find that water-carriage is increasing in popularity, and especially those types which utilize the waste water of the household for this purpose. Some 500 of the latter kind were constructed last year and seem to have given every satisfaction. Dr. McLean says in his report on slop-water closets at Yeadon :—" They are a great advance on the old midden system and I should " like to see them more universally adopted. They are the cheapest form of " water carriage, cause no waste of clean water, and therefore give no extra " amount of liquid to be dealt with at the sewage works. They are not " injured by frost, nor easily in any other way if they have ordinary care used, " and the cost both at first and for up-keep is small." At Barnsley also, the the waste-water closets introduced of late years " maintain their position as an " important improvement on the old privies."

In many districts, of course, it is not at present possible to convert the old privies into water closets, but there is no reason why a great deal of good work should not be done by reconstructing and reducing in size the many unsuitable middens which still transgress all sanitary requirements. At Gildersome " many of these structures have their floors and sides in such a " condition that the liquid filth percolates through, and flows into the " surrounding ground." In the Rotherham rural district Dr. H. C. Coopland thinks that " probably the most fruitful source of zymotic disease is the privy-" midden system. The dust is blown about, whilst the stench from decomposing " animal and vegetable matter is almost unbearable." Dr. Williamson, of Sandal, thinks that some of the old-fashioned offensive privy middens in the centre of an increasing population are not only a danger to health, but have also a demoralizing effect. Dr. McLean describes the emptying of some of these receptacles at Yeadon—" It is necessary in most cases that the contents " be piled up in the streets previous to putting into the carts, and that then " much refuse must be left behind, the result being, as soon as the moisture " in it has dried up that much poisonous dust is blown about the town." Dr. F. McDonald Swallow reports :—" Nothing has been done to improve the " privies at Hillside, Silkstone," to which attention was called last year.

Dr. F. J. Burman, of Wath-on-Dearne, has given some thought to the influence of privy middens on the public health, and has come to the conclusion that infection from privy middens is often carried by flies and deposited on the food suppies.

Nuisances, &c.—The inspection of nuisances, for which sanitary inspectors were originally called into existence, still remains an important item in local sanitary administration, as may be gathered from the following table of recorded nuisances in the Administrative County :—

Nuisances remaining unabated at beginning of year ...	3,573
Nuisances remedied during the year	13,891
Nuisances remaining on hand at close of year ...	3,839
Sink wastes trapped	3,628
Ditto disconnected	2,855

The above figures are not by any means exhaustive as I have not been able to include the figures from some 36 sanitary districts. They serve, however, to indicate what an enormous work is being done in this direction regularly and quietly; only a few summonses became necessary in connection with these nuisances.

I find on comparing individual districts that there is no uniformity in the ratio of nuisances to population: in one district there may be several hundred nuisances attended to in a year, while in another similar district the number will not reach a score. Probably the reason for this is to be found in the different circumstances surrounding the office of sanitary inspector. In one district the inspector is an energetic man devoting his whole time to the office, while in another they have an equally energetic man occupying half-a-dozen posts. A considerable number of the inspectors of nuisances in the Riding also occupy other positions, and the list of extraneous duties so undertaken is very extensive, including surveyor, gas inspector, rate collector, assistant overseer, registrar of births and deaths, waterworks manager, clerk to burial board, and even letter carrier, milk seller, and butcher. For this state of things the inspectors themselves are not to blame and I have nothing but praise for the way in which they do their work under the circumstances in which they are placed and at salaries varying from £8 a year upwards. One Urban Council of far from minor importance pays the inspector £20 a year, and he reports that over 700 nuisances were reported and abated in 1900, and that systematic house-to-house inspections were made.

The Paving of Streets and Yards is becoming more and more recognised as a sanitary requirement of primary importance. Medical officers in all urban districts are urging the value of proper impervious surfaces around dwellings, not only as a means of tidiness but as preventing the lodgement of decaying filth, and improving in a marked measure the hygienic status of the community. Among the references to this important subject in reports under review are the following :—

WHITWOOD.—"Very large numbers of yards and back streets are in a "filthy condition. The materials used for covering the yards are permeable "and harbour filth and dirt of all kinds. In the dry weather this filth becomes "dry, and is carried about by the wind in the form of dust; the surrounding "inhabitants inhale it; their food, more especially their milk, becomes infected "by it, and the obvious result of epidemics of diarrhœa and other forms of "sickness follow."

PONTEFRACT.—"I would more particularly like to draw your attention to "the dirty condition of many of our back streets and alleys, which are mostly "either unpaved or at least imperfectly paved, allowing as they do, when in "such a badly paved condition, the refuse and contaminated material from "privy middens, when scattered over the surface to remain a constant menace "to the health of the people using these yards as a thoroughfare, and the "children inhabiting these yards and using them as a playground."

BURLEY-IN-WHARFEDALE.—"During the last three months of the year, "a period of continued rain and damp weather, the back streets of the village "got into a most deplorable state, always covered with mud and water, they "must certainly have contributed something to the maladies of that un-"pleasant period. Sun lane and its offsets, Booth street, Back lane, and the "lower end of Langford lane, are the worst offenders, and I think it time that "something was done to remedy the evil."

HORBURY.—"I would also draw your attention once more to the condition "of Cross Street and Shepstye Road. These roadways are still in a very bad "state, especially in wet weather. I am aware that they are considered "private streets; but, if so, they should not be allowed to remain year after "year in their present state. I think if it is the owner's duty to do this "work, your Council has also a duty to perform to the public in this matter, "the performance of which should not be deferred any longer."

GOOLE.—"The ground is naturally damp, having peat not far from the "surface, and clay beneath that; but this natural difficulty can be met by "securing a well made road, and means of carrying off all surface water."

HOLMFIRTH.—"I have again to record that much untidiness arises from "the lack of recognition on the part of the public of what I may term "co-operative cleanliness; all sorts of refuse is thrown into the roadways, and "it is no uncommon thing for a washing of stone floors and outside flags to "conclude by a throwing of the resulting dirty water on to the road, where in "summer at any rate the dirt so collected is often subsequently blown as dust "into the faces of passers by."

Dr. C. Wills puts the case very cogently in the report to the Kiveton Park Rural Council as follows,—"Yards should have a hard, smooth surface "of asphalte, brick, or cement near the houses, in order that all filthy refuse "may be washed by swilling with water into the sewers, otherwise the filth "from mats and carpets, dried expectoration, the excrement of dogs and other "animals dries on the surface around the house and is blown into the air as "dust, which is breathed by those living in the yard and by others passing "through the locality, also it is blown into the houses and on to the windows "and food, and since filth dust is believed to be a fruitful source of disease, "filth should be swilled into the drains before becoming dry by water, and "sweeping should, as far as possible, be avoided."

Dr. J. Mitchell Wilson refers to a matter which is becoming an important question in more places than Goole where, he says,—"the tenants of the "newer houses have gradually been allowed to lessen the sanitary value of "their houses by erecting all sorts of out-houses built of wood, until the "150 feet required as free air space has been largely if not altogether covered. "These undesirable erections greatly hinder the free currents of air for all the "houses, which would carry away the offensive air near the houses, and "would also greatly assist in carrying off the moisture from the yards which "are not paved.

Allotments.—As a means of securing the tidiness of backyards, by allowing people to carry on their hobbies of animal keeping, etc., elsewhere, the attention of Sanitary Authorities might well be drawn to the powers under the Allotments Acts. Wherever allotments have been provided, the step seems to have been well appreciated, with results which cannot be other than satisfactory. In the Skipton report it is mentioned that "the whole of the "allotments provided by the Council, viz., Spring Gardens, 24; Brook "Street, 73; and Sewage Farm, 11, have been let during the year. In "consequence of the demand for allotments in the district of Middletown the "Council has decided to rent a portion of Proctor's Park, containing "4a. 1r. and 30p. and provide 65 new allotments, and the work of laying this "land out is being rapidly proceeded with."

Dwellings.—Mention is made of 4979 houses having been built during 1900, but many of the reports omit the numbers, so that the above figure does not represent the total for the Administrative County. There are few adverse comments as to the type of new houses. At Morley, back-to-back dwellings are still being built, and at Ardsley East and West some quite modern erections are beginning to cause trouble. Dr. B. G. Ewing writes,—"Some few houses opened about five years ago are almost now in a condition "fit for condemnation. The roof, the walls, and the foundations are all at "fault. To speak plainly, they are simply jerry-built, and such a type of "house should not be tolerated in our district."

With regard to the old houses especially, the reports contain many references to the continued occupation of damp and dilapidated buildings in various parts. In reply to the question as to whether there are any houses unfit for habitation the following are the affirmative replies by local medical officers:—

Ardsley East and West ...	... A few must soon be condemned.
Barnsley ...	... In Old Mill Wharf, Wilson Street, and [Albert Street.
Batley ...	... Five.
Hoylandswaine ...	... Three.
Keighley ...	... Yes.
Kirkburton ...	... One.
Liversedge ...	... Yes.
Pontefract ...	... Near the Horsefair.
Pudsey ...	... A few.
Rawdon ...	... Eleven.
Rotherham ...	... 63 reported.

Sanitary District.	*Houses unfit for habitation.*
Sandal	14.
Selby	20.
Shelf	Yes.
Stocksbridge	Yes.
Thurstonland	One.
Barnsley R.	At Carlton Lane and Woolley Edge.
Bishopthorpe R.	A few.
Knaresbro' R.	Eight.
Penistone R.	Three.
Sedbergh R.	Two.
Thorne R.	A few.
Wakefield R.	Two.
Wharfedale R.	One at Casltey.

In 16 other reports it is mentioned that insanitary houses have been demolished or closed, or are the subject of proceedings with that object. At Bingley, Greetland, Goole R., Holmfirth, Kirkheaton, Knottingley, Mytholmroyd, New Mill, and Yeadon there are uninhabitable houses which are at present unoccupied. In some of these cases it might be well from a public health standpoint to secure their demolition ; for example, at Swinefleet "several houses which have not been occupied for years stand, getting every "year in a worse condition, and they obstruct light and air from those remaining." At Mill Fold, Barkisland, Dr. Hoyle urges that "the cottages adjoining the "mill should be made through ones as they are in need of more ventilation "and sunlight."

Overcrowding.—Instances of overcrowding have been discovered and remedied in some 13 districts during 1900, while in about 30 other districts the medical officer is aware of some degree of overcrowding and is presumably contemplating action. In the Ardsley E. and W. district houses are said to be very scarce, while at Bolton-on-Dearne the construction of a new railway has caused some crowding. In certain colliery villages near Rotherham overcrowding is common and there are many cases at Selby where 14 notices were served during the year.

The Housing of the Working Classes Acts constitute a powerful aid to the medical officer in procuring better surroundings for the poorer classes, and it is to be regretted that these powers are not oftener brought into play. In one of the reports there is a paragraph urging the necessity for further legislation, but, as a matter of fact, the powers advocated have been law for the past ten years.

By Sec. 32 of the Act of 1890 it is the *duty* of all Sanitary Authorities to cause systematic inspection to be made with the view of discovering any houses unfit for habitation and if any dwelling appears to be in such a state on the representation of the medical officer the Authority *must* forthwith proceed for its closure under the Nuisance Sections of the 1875 Act. Nothing could be more imperative, yet action was only taken in ten districts during the year.

Part I. of the Act relates to “ unhealthy areas ” and applies only to urban districts. In reply to a question as to whether there are any such unhealthy areas in the urban districts of the Riding, the following are the remarks of the medical officers—

Featherstone ...	Allison Square and Chapel Street.
Gildersome	Yes.
Keighley	Westgate.
Pontefract	Yes.
Pudsey	Beckside Hill.
Saddleworth ...	The Square, Delph.
Swinton	A few blocks of houses.

The Pontefract Corporation have given consideration to this subject of unhealthy areas, and Dr. Hillaby reports as follows :—“ In the particular case “ of one such area, situated in the Horsefair, substantial progress has been “ made, for on my recommendation six houses in one yard have been closed “ as unfit for human habitation, and at the present time I have a report in “ hand dealing with the area of which these houses constitute a part, and “ which, if it leads to an improvement scheme involving the whole block of “ property, will effect the transformation of a series of yards, the continuance “ of which, in their present condition, constitutes a constant menace to the “ health of the people dwelling both in and around such an area. The “ demolition of such a collection of badly constructed, ill-lighted, ill-aired, and “ filthy dwellings is a most desirable thing from another point of view ; it “ would be an improvement to one of our leading thoroughfares, which is for “ the most part one of the finest streets, were it not for the presence of these “ filthy slums.” Dr. Hillaby also continues :—“ In making inspections of the “ various alleys and yards of our Borough, and contemplating the possible “ improvements which they would most likely lend themselves to, the errors “ of the not distant past that have been made in allowing the erection of “ houses (or blocks of houses), in such positions as to almost preclude the “ establishment of efficient thoroughfares without the acquisition of valuable “ property for such a purpose, has forced itself on my attention. The lesson “ to be learnt from that is, that when plans for the erection of houses are “ under your consideration their conformation with some definite plan for the “ improvement of the locality should be carefully kept in view, and especially “ is this necessary at the present time when our town is being so rapidly “ extended by the erection of new dwellings in almost every direction.”

By the Housing of the Working Classes Act, 1885, a tent, van, or shed which is used for human habitation becomes amenable to the nuisance laws, and it would be well for sanitary authorities to bear this in mind, having regard to the wandering habits of van-dwellers and their consequently increased influence on the public health. These matters have been receiving attention at Slaithwaite, where, Dr. Webster reports “ satisfactory sanitary accommodation has, during the year, been made in the feast ground ; and the intimation “ by the inspector of a much more stringent demand in regard to cleanliness “ and decency amongst the many hawkers, gypsies, showmen, and other “ habitues was very desirable, and is much to be commended.”

Schools often exert a considerable influence upon the health of a district, and from every point of view it is desirable that their sanitary equipment should be above reproach. Medical Officers of Health and inspectors of nuisances should remember that a school is a house within the meaning of the Public Health Act and they should not omit to keep all schools within their official purview. It is recorded in the reports for 1900, that no fewer than 223 elementary schools in the Riding were closed during the year on account of their influence in spreading disease or in anticipation of it. This closure is seldom for less than three weeks and often considerably more, so that the interference with education becomes a serious matter for all concerned. In several places the necessity for resorting to school-closure has been obviated by the assistance of the teachers in promptly notifying the medical officer of any absentees through illness or of any suspicious sickness among the attenders. At Ardsley East and West, Ilkley, Keighley and Rotherham, the Medical Officer of Health is also appointed to act as medical officer to the School Board and this is a very desirable combination which one would like to see more generally adopted, as it cannot but operate for the mutual advantage of Sanitary Authority and School Managers. In the Keighley report Dr. W. Scatterty writes,—" Apart from " the influence school life may have in spreading infectious diseases in crowded " classrooms, the well-being of thousands of children at a susceptible age " depends on the ventilation and general sanitation of their schools. For this " reason, and at the request of the School Board, I made a systematic " inspection of all the Board Schools in the Borough. A report on the " condition of each school was laid before the Board, and I am pleased to say " the suggestions then made with regard to ventilation, etc., have been or are " being carried out."

By-laws.—In some districts the by-laws are twenty or thirty years old and require revision ; in others their provisions are not well known ; and in a few they are not strictly enforced. They are said to require re-modelling at Castleford, Gomersal, Hoylandswaine, Liversedge, Monk Bretton, Ravensthorpe, Rothwell, Whitwood, and in the Rotherham and Wortley Rural Districts. Additional by-laws are also asked for by medical officers as follows :—

Brighouse ...	... As to offensive trades.
Featherstone ...	... Houses let in lodgings.
Ilkley ...	... Hackney carriages.
Pudsey ...	... Offensive trades and slaughter houses.
Stocksbridge ...	... Closets.
Kiveton Park R.	... Buildings.
Penistone R. ...	... General.
Sedbergh R. ...	... New Streets and Buildings.
Wetherby ...	... Many.

New by-laws were adopted or were under consideration during 1900 at Barnoldswick, Bingley, Bolton-on-Dearne, Cudworth, Harrogate, Holme, Queensbury, Rothwell, Roystone, Sandal, Shipley, and also in the Hemsworth, Rotherham, Sedbergh and Tadcaster Rural Districts. A complete official list of by-laws sanctioned during the previous year (1899) will be found in the appendix on page 68.

Dr. Cheesewright observes that at Greasborough there is great need for a rigid enforcement of the by-laws with respect to the keeping of animals, and the same is true in many other industrial centres.

Dairies, Cowsheds, and Milkshops.—The recent activity in improving the sanitary conditions surrounding the production and distribution of our milk supply has been well maintained in the West Riding. Omitting several districts from which no returns have been supplied to me, I find that among 97 districts there are 3477 registered cowkeepers. Practically all of these have been regularly inspected and reported upon, and in many instances sanitary improvements have been insisted upon or the cowsheds closed. In the appendix, page 68, will be found a list of districts where new regulations were framed in the year 1899. There are now only a few districts in the Riding where none are in force. During 1900 the West Riding Sanitary Committee, as mentioned elsewhere, gave a great deal of consideration to this subject and they drew up and distributed a set of "suggestions" for the guidance of the sanitary authorities in administering the Dairies, Cowsheds and Milkshops Order and Regulations, a print of which will be found on page 71. It is to be hoped that the recent publication of Professor Koch's unendorsed views as to the rarity of tuberculosis being transmitted through milk will not be allowed to cause any relaxation in the demand for healthy surroundings in cowhouses and dairies. There are many undisputed reasons for this.

Among the comments on this subject which appear in the annual reports for 1900, are the following :—

SELBY.—" In inspecting the cowsheds there is uphill work to induce the "keepers to permit almost any modicum of air to enter the sheds. Every " opening is often found closed, and the practice is contended for because " 'the cows must be kept warm if they are to yield the largest amount of milk.' " Two sheds have been condemned as unfit to be used, and two fresh ones " registered."

BOWLAND RURAL.—" There are many other farms in this district where " water is still much wanted."

SHELLEY.—" Mr. William Mosley's farm premises at Shelley are in a " most unsatisfactory condition. To begin with they are structurally bad; " and, as to cleanliness, they are in the highest degree discreditable. The "premises are allowed to remain in this state by Mr. Mosley after *repeated* "advice and warnings, which seem to have not the slightest effect upon him. " In my opinion, more severe and drastic measures should be adopted here, " as ordinary warnings are apparently quite useless."

WORTLEY RURAL.—" No great improvement will take place in their " condition until a systematic inspection is made at regular intervals of all " the cowsheds and dairies in the district, and a register kept recording " detailed information regarding them."

The Keighley Health Committee continue to take an active interest in the protection of the milk supply and Dr. Scatterty reports that their action is slowly influencing public opinion,—" Every cow which the Veterinary

"Surgeon has found to react to the test has been isolated and subsequently "slaughtered. In every case also the value of the test has been proved by "the presence of tubercular deposits in the carcase. In one instance the test "was thought to have failed. A cow, in the opinion of experienced judges, "was thought to be suffering from consumption. The tuberculin test was "applied with purely negative results, and the inference was that the test was "in error. The cow was killed and after a most careful examination of the "carcase I had to report "no sign of any trace of Tuberculosis.""

Dr. T. Percival in the Pontefract Rural report suggests that the places where ice-cream is made should be under quite as strict supervision and regulation as milk dairies.

Slaughter Houses.—The number of premises mentioned in the reports as being registered for the slaughtering of cattle is 753, and all of them have been regularly inspected. In the following districts the condition of some of the private slaughter-houses is described as unsatisfactory. The attention of the Local Authorities should be given to this matter if not already remedied,—

Featherstone
Holmfirth
Horsforth
Knaresborough
Pontefract
Skipton
Todmorden
Halifax Rural
Hunslet ,,
Penistone ,,

At Hoyland Nether certain defects were ordered to be remedied, and at Guiseley legal proceedings were instituted. In a few of the districts it would appear from the returns that slaughter-houges are inspected but are not registered. This must be due to a misunderstanding of the state of the law on this subject, and, as I find there is much confusion as to "licensed" and "registered" slaughter-houses, I venture to give the following precis of the statute, which is in force in every urban district:—

(1) *Every* slaughter-house in the district must be "*registered*," *i.e.*, entered up in a book kept by the Sanitary Authority.

(2) No place can be used as a slaughter-house without a written "*licence*" from the Sanitary Authority, unless it was so used prior to 1875.

(3) Any person intending to commence using premises (since 1875) as a slaughter-house or intending to erect a slaughter-house must apply to the Sanitary Authority for a licence.

(4) The Sanitary Authority then grants the licence and this licence is registered, that is, entered up in the book above referred to.

(5) The effect of this is that all slaughter-houses in Urban Districts are "registered"; and all started since 1875 are both licensed and registered.

In urban districts where the Public Health Acts Amendment Act has been adopted the following additional provisions apply:—

(1) *New* licences only run for a definite period to be fixed by the Sanitary Authority (not less than 12 months) after which they must be renewed.

(2) Change of occupier necessitates a transfer of the licence.

The following extracts from the reports for the year 1900 regarding slaughter-houses should receive attention :—

Skelmanthorpe.—"I regret to say that the Scissett Co-operative "slaughter-house and its surroundings are just as they were when last reported "on. In my last report I alluded to this at some length. No effective steps "have been taken to secure a better site, and, in addition to the objectionable "situation, the general condition and management of this place are often most "unsatisfactory."

Thurlstone.—"As the butchers have no printed copies of the bye-laws "relating to slaughter-houses placed in a position where they can easily be "seen, it follows that the bye-laws are not strictly carried out."

Penistone Rural.—"The slaughter-houses are ten in number. They "are not registered, and some of them are by no means satisfactory. There "is faulty construction of the floors, and the drainage, water supply, and "ventilation are not what they should be. The walls and ceiling ought to be "lime-washed every three months."

There is a growing feeling in favour of public abattoirs, and the time will come when private slaughter-houses in urban districts will be entirely abolished. In reply to a question by me, the medical officers of health have recorded their opinion that a public abattoir is necessary or desirable in thirty of the urban districts of the Riding.

Common Lodging Houses.—One hundred and twenty-two registered common lodging houses are referred to in the reports as having been inspected during the year and found to be in a satisfactory condition or fairly so. There is one in the Saddleworth district which is said to be not registered, although the Public Health Act requires every such place to be registered and also requires every Sanitary Authority to make bye-laws relating to the same. The Act does not precisely define what is a common lodging house, and no doubt in some districts itinerant persons are lodged in houses not registered. Thus at Tickhill there is only one registered lodging house, but Dr. J. Mitchell Wilson says :—"I rather think that other persons "not registered admit the same class under the plea that they are "weekly "lodgers." The registered house is far more satisfactory and cleaner than "the others referred to."

Canal Boats which are used as dwellings are subject to strict supervision by the Sanitary Authorities through whose districts they pass. In the case of infectious sickness occurring on board, the master is required to notify the Sanitary Authorities of (1) the district where the boat is, (2) the place to which it is travelling, and (3) the place to which the boat belongs (per the owner).

It is recorded that during 1900, no less than 1864 inspections were made of boats passing through districts within the Administrative County. Their sanitary condition was generally found to be satisfactory, but at Swinton three boats were found to contravene the Acts, at Doncaster three notices had to be served, while in the Tadcaster Rural District 10 boats were discovered defective from a sanitary point of view. No prosecutions became necessary.

Bakehouses are, perhaps, not such important institutions in the West Riding as in some other parts of the county where the cottage houses are not supplied with ovens. Nevertheless, the local sanitary authority has a duty to perform in relation to bakehouses, and it is well that the medical officer and sanitary inspector should keep them under inspection as far as possible. During the year 1900 there were 234 inspections recorded, and with very few exceptions the premises were found to be satisfactory, and properly whitewashed or cleaned according to law. In the Kiveton Park district there was a bakehouse in need of sanitary improvement, and another at Featherstone which was unsatisfactory.

Factories and Workshops.—There is a tendency in some quarters to regard these as being entirely outside the domain of local sanitary officers, but this is not so. In some 60 districts it is recorded that the workshops are regularly visited by the sanitary inspector, who, it should be remembered, has the power of entry at any time when persons are employed. A specially important provision applies to certain specified trades whereby employers and contractors are required to keep a list of out-workers, open to inspection by any officer of the local sanitary authority. This is obligatory as regards manufacturers of wearing apparel, electro-plate and files; also in cabinet making, upholstering, and furpulling. Wearing apparel must not be made or cleaned in houses where there is case of small-pox or scarlet fever.

With regard to injurious conditions of labour in factories and workshops, that matter, of course, is well attended to by H.M. Inspectors, but an instance occurred at Golcar where the dust from a rag grinding mill was discharged through a shaft and created a nuisance to the general public. This case was taken up by Dr. A. G. Webster, with the result that measures have been adopted which it is hoped will obviate the mischief.

Offensive Trades include, technically, only a small number of prescribed occupations which are classed in law as offensive *per se* irrespective of any careless management. It is illegal to establish these trades in urban districts without the consent of the sanitary authority, who should make by-laws and cause the works to be regularly supervised. During the year over one hundred inspections were made of premises where such recognised offensive trades are carried on. With the exception of a tannery at Hipperholme and some oil and manure works at Wath-on-Dearne, none of the trades are stated to have given rise to public nuisances during 1900. The last named works are bitterly complained of and should receive better attention.

Smoke Abatement.—Everyone is agreed as to the necessity of maintaining the purity of the air we have to breathe: the only question is how to do it in a manufacturing district like this. Apart entirely from the employment of mechanical or special means of smoke consumption at our factories there is no doubt that much improvement can be effected wherever an honest attempt is made by manufacturers, stokers and Sanitary Authorities in unison. The best way to secure this is for the sanitary inspector to *regularly* take observations and place his results before the Council. The opinion is often expressed that this work should be controlled by some large central body like the County Council so as to avoid the difficulty of a local inspector having to report members of his own Authority as being chief offenders. Under present conditions it is well for inspectors to take routine observations systematically and so avoid any suggestion of invidious selection ; but some inspectors deem it wiser to take none.

In only 35 districts were smoke observations recorded during 1900, but the total number of such observations was some thousands. Written warnings were served upon manufacturers in many instances, and legal proceedings were taken at Baildon, Barnsley, Harrogate, Keighley, Pudsey, Shipley, and Todmorden. In some parts of the Calder Valley the evil seems to be very noticeable. Thus, at Hebden Bridge, Dr. Lawson writes,—" Emission of " dense smoke is still an object of complaint, and any mitigation of this " nuisance would be a great source of satisfaction to the general public." Dr. Brown advises the Greetland Urban Council to call upon their nuisance inspector for a monthly report and to publish his observations in the newspapers. At Elland, Dr. Denning writes,—" I have for several years inserted " in my Annual Report a paragraph on ' Smoke Abatement.' I feel now " that any further remarks of mine on this subject would be simply a waste of " paper and energy. The nuisance continues unabated, and will so continue " till the subject is taken up by an independent Authority." Dr. Martin, of Brighouse, regards faulty stoking as the cause of a great deal of nuisance and he asks " is it not worth the manufacturers' while, as a body, to so instruct " their furnacemen that the better consumption of the coal should be accom- " plished ? "

The Shipley report contains the following argument by Dr. W. Foster, the medical officer of health,—" When our authorities spend so much thought, " time and money to keep pure our rivers and streams, it is a logical deduction " that we should so much the more keep pure the atmosphere we breathe, day " and night, during every minute of our natural lives. To busy ourselves with " the former and to neglect the latter would show that we are lacking in a due " sense of proportion. If we mean to maintain our vitality and vigour, to " diminish our phthisis, tuberculosis and respiratory death rates, we shall " have to recognise that our smoke contaminated air is one obstacle to the " attainment of these benefits. The high price of coal will not be an unmixed " evil if it stimulates people to look with a more favorable eye upon means to " prevent such a waste of fuel ? "

Burial Grounds.—The need for increased burial accommodation which was noted in the previous year's reports at the following places apparently remains as great as before :—Farsley, Gisburn, Hebden Bridge, Meltham, Queensbury, Horton-in-Ribblesdale, Chapel-le-dale, Ingleton, Kildwick, Fewstone, Blubberhouses, Norwood, Timble Great, and Oughtibridge. In the reports for 1900 the list is extended by the mention of Ardsley East and West, Birstall, Greetland, Methley, Rawmarsh and Todmorden.

Public Mortuaries have been provided by the sanitary authority in only about a dozen districts, though the need for such provision is greatly felt in many places. Thus, at Rothwell, Dr. Stevenson writes :—" There is " at present no mortuary in your district, and dead bodies are frequently taken " out of the Aire and Calder Canal at Stourton in an advanced state of "decomposition and kept on the premises of the Stourton Hotel, till an inquest "has been held. The Stourton Hotel is closely surrounded by dwelling-"houses, and does not contain suitable accommodation for the reception of "dead bodies, and as no other building in the vicinity is available for this "purpose I advise that a public mortuary suitable for the requirements of the "district be provided."

Seizures of Unsound Food took place in some 13 districts during 1900. The articles of food so destroyed included beef, veal, mutton, pork, tinned meats, mackerel, herring, salmon, rabbits, tripe, and vegetables. Four vendors were summoned for exposing such unsound food for sale. Sanitary Authorities should note that by adopting Sec. 28 of the Public Health Acts Amendment Act 1890, they can extend the law to eggs, butter, cheese, and all articles of food whether exposed for sale or actually sold.

Sale of Food & Drugs Acts.—Every Sanitary Authority has the right and duty of appointing an officer to submit samples to the public analyst, in addition to those which are taken by the regular inspectors of the County Council. This power was exercised during 1900 by the under-mentioned 39 Authorities, whose officers submitted 532 samples. Of this number 200 were samples of milk purchased by local sanitary inspectors under the arrangement by which the County Council defrays the cost of analysis and provides the bottles and outfit.

Baildon	3
Balby-with-Hexthorp	11
Barnsley B.	73
Birstall	3
Brighouse	6
Castleford	3
Denby & Cumberworth	2
Dewsbury B	30
Doncaster B	42
Elland	1
Featherstone	6
Golcar	6
Goole	8
Guiseley	2
Harrogate B	21
Haworth	4
Hebden Bridge	3
Hemsworth R	3
Hipperholme	5
Honley	10
Hoyland Nether	12
Hunslet Rural	2
Keighley B	23
Knottingley	2
Meltham	11
Otley	11
Pudsey B	6
Rawmarsh	6
Rotherham B	73
Rothwell	18
Roystone	7
Sedbergh R	3
Shelf	1
Slaithwaite	3
Southowram	2
Todmorden	25
Wakefield City	47
Wakefield R	20
Wombwell	18

A number of the above samples consisted of beer to be examined for arsenic in consequence of the epidemic of poisoning which occurred towards the end of the year. There are not many references to the matter in the reports under review, because it was not until the opening of the present year that great activity was awakened in the West Riding. In the Ilkley report, however, there occurs the following paragraph:—"Like many other districts "Ilkley suffered from arsenicated beer, and many of the inhabitants presented "toxic symptoms. The cause being found out led to the poisoned ale being "destroyed, and brewing conducted on more healthy lines. This discovery, "however, that beer can be so polluted as to become dangerous—apart from "the alcohol it contains—will necessitate vigilance on the part of the Council, "and from time to time lead to examinations and careful chemical analyses "of the products of breweries."

Climatic Conditions cannot fail to have a direct bearing upon the health of a locality, but the Administrative County includes such a variety of districts widely different in physical characters that it is not possible to draw any general conclusions from the data available in the annual reports, chiefly as to temperature and rainfall.

MEAN TEMPERATURE OF THE YEAR 1900:—

	Degrees F.		Degrees F.
Barnoldswick	47·85	Skipton	47·85
Harrogate	47·60	South Crosland	48·10
Hebden Bridge	47·55	Todmorden	50·07
Hoyland Nether	49·83	Wath-on-Dearne	46·16
Ilkley	47·20	Bowland R.	47·60
Keighley	48·00	Settle R.	46·67
Meltham	47·90	Todmorden R.	47·55
Ossett	48·79	Wharfedale R.	44·19
Pudsey	48·00		

THE TOTAL RAINFALL of the year was uniformly considerably greater than in the previous year, the highest records being, as usual, up in the hilly districts to the West of the Riding.

The figures given in the Annual Reports are—

	Inches.		Inches.
Barnoldswick	44·15	Silsden	31·22
Barnsley	29·17	Skipton	38·48
Batley	26·40	South Crosland	36·83
Elland	37·70	Southowram	36·89
Greetland	44·00	Todmorden	54·31 to 58·04
Harrogate	37·80	Wath-on-Dearne	29·52
Hebden Bridge	48·24	Worsbrough	29·17
Hoyland Nether	28·47	Barnsley R.	29·17
Ilkley	44·12	Bowland R.	48·21
Keighley	43·70	Keighley R.	39·68
Meltham	48·70	Sedbergh R.	55·90
Mexborough	24·56	Settle R.	45·31
Ossett	25·36	Thorne R.	22·00
Otley	31·58	Todmorden R.	44·52
Oxenhope	48·08	Wetherby R.	30·18
Pudsey	35·29	Wharfedale R.	39·28
Rishworth	46·00	Wortley R.	30·80
Saddleworth	45·10		

The year's rainfall at Harrogate is said to have exceeded the record for thirty years. At South Crosland, the dampness due to the retentive nature of the soil and the absence of trees is thought by Dr. Smailes to "contribute "largely to the prevalence of pulmonary complaints which form the principal "causes of death."

In conclusion, it is a matter for congratulation that the good feeling and cordiality subsisting between the various Sanitary Authorities and this Department has been strengthened during the year by increased co-operation and intercommunication with the local officers. To the latter, and particularly to my colleagues the medical officers of health throughout the Administrative County, I am deeply indebted for the unvarying courtesy and help shown to me at all times. Another year's experience of the progressive efforts manifested generally in the West Riding has emphasized my opinion of the great importance of sanitation, socially, physically and morally.

JAMES ROBT. KAYE,

County Medical Officer.

Wakefield,
September, 1901.

PART III.—APPENDIX.

Money borrowed by Local Sanitary Authorities.—The total amount of the loans for various purposes sanctioned in recent years by the Local Government Board, on the application of local authorities within the Administrative County is shown in the following table:—

Loans sanctioned, 1888-99.

YEAR.	PURPOSE.				Total Loans Sanctioned.
	Sewerage and Sewage Disposal.	Water.	Hospital.	Other.	
	£	£	£	£	£
1888	14,110	9,130	5,500	90,434	119,174
1889	25,933	53,479	—	71,968	151,380
1890	9,969	57,030	8,500	24,505	100,004
1891	64,035	63,205	8,300	88,518	224,058
1892	77,323	16,180	2,005	118,856	214,364
1893	101,143	27,250	9,150	140,639	278,182
1894	202,839	56,328	30,386	117,306	406,859
1895	289,370	81,176	11,635	255,110	637,291
1896	168,706	12,501	250	107,965	289,422
1897	147,400	18,432	12,420	149,122	327,374
1898	170,074	18,278	28,460	262,252	479,064
1899	192,654	43,760	16,990	183,281	436,685

The next Table shows the individual loans which have been sanctioned to Sanitary Authorities in the West Riding during the year 1899:—

Loans sanctioned during 1899.

I.—Urban Districts.	Purpose.	Years	Amount.
			£
Ardsley East and West ...	Surface water drainage	30	350
Barnoldswick ...	Private street improvement	6	2833
” ...	Sewerage and disposal	30	1840
” ..	Water supply	13	400
Barnsley ...	Surface water drainage	30	785
Batley ...	Repayment of loans	21	69683
Bingley ...	Land for sewage disposal	50	3832
” ...	Sewerage and disposal	30	26168
” ...	Road roller, etc.	10	460
Burley-in-Wharfedale ...	Gas purposes	30	150
Castleford ...	Street improvement	24	3499
Cleckheaton ...	Recreation ground	50	2630
” ...	Sewerage	30	2500

I.—Urban Districts.	Purpose.	Years	Amount.
			£
Darfield	Street improvement	50	87
,,	,,	3	813
,,	Private street improvement	3	850
Darton	Sewerage and disposal	30	13000
Denby and Cumberworth	Water supply	15	360
,,	,,	30	128
Dewsbury	Street improvement	50	260
,,	,,	20	390
Flockton	Sewerage and disposal	30	1000
Gildersome	Public offices, public walks, etc.	28	2500
,,	Sewerage and disposal	30	12182
Golcar	,,	30	11328
,,	,,	30	318
Gomersal	Land for sewage disposal	50	2703
,,	Purchase of waterworks, etc.	20	9902
,,	Sewerage and disposal	30	6278
Goole	Street improvement	12	4430
Greasborough	Sewage disposal	30	1220
Handsworth	Sewerage and disposal	30	2693
Harrogate	Public convenience	30	250
,,	Repayment of loans	28	3867
,,	Sewerage & surface water drainage	30	930
,,	Shelter	20	300
Heckmondwike	Refuse destructor	20	1200
Hoyland Nether	Street improvement	21	1200
Ilkley	Formation of new streets	22	175
,,	Public walks, etc.	20	375
Keighley	Land for slaughterhouses	50	4500
,,	Street improvement	50	1542
,,	Sewerage	30	4558
,,	Street improvement	20	6718
Knottingley	Water supply	30	1200
Linthwaite	Repayment of loan	43	2350
,,	Sewerage and disposal	30	22272
,,	Street improvement	34	575
Liversedge	Refuse destructor	25	2809
,,	Street improvement	30	744
Luddendenfoot	Sewerage	30	5210
Meltham	Sewage disposal	50	15000
,,	Sewerage and disposal	30	13230
Mexborough	Land for depôt	50	384
,,	Land for Market	50	695
Mirfield	Sewerage and disposal	30	5800
North Bierley	Public lighting	10	225
,,	Refuse tip	7	600

I.—Urban Districts.		Purpose.	Years	Amount.
				£
North Bierley	...	Street improvement	18	612
,,	...	Water supply	30	650
Otley	...	Street improvement	30	450
Penistone	...	,,	26	500
Pontefract	...	Depôt and stables	28	1099
,,	...	Market purposes	33	1809
,,	...	Public offices	25	1026
,,	...	Water supply	23	213
,,	...	,,	25	5090
Pudsey	...	Land for sewage disposal	50	4900
Queensbury	...	Sewage disposal	30	450
Ravensthorpe	...	Depôt and fire station	33	1943
,,	...	Land for public walks, etc.	50	1030
,,	...	Public offices	33	2527
Rawdon	...	Private street improvement	7	746
,,	...	Repayment of loan	30	2830
Rawmarsh	...	Gas undertaking	27	6702
,,	...	Land for public walks, etc.	50	3000
,,	...	Public walks & pleasure grounds	20	655
Ripon	...	Street improvement	50	3060
,,	...	Water supply	30	1800
Saddleworth	...	Sewerage and disposal	30	1475
Selby	...	Gasworks purposes	30	360
,,	...	Sewerage	30	900
,,	...	Water supply	30	540
Silsden	...	Hospital purposes	27	2286
Skipton	...	,,	27	9143
,,	...	,,	30	290
,,	...	Land for slaughterhouses	50	750
,,	...	,,	2	1750
,,	...	Slaughterhouses	30	3000
Soyland	...	Water supply	32	14000
Swinton	...	Land for refuse tip	50	2450
Thornhill	...	Street improvement	20	4323
Thurlstone	...	Sewerage and disposal	30	500
Todmorden	...	Fire station and depôt	20	500
,,	...	Hospital purposes	10	700
Tong	...	Sewerage	30	1300
,,	...	Sewerage and disposal	30	820
,,	...	Street improvement	20	3000
Warley	...	Sewerage	30	5545
Wombwell	...	Bridge improvement	20	700
,,	...	Gasworks purposes	—	1500
,,	...	,,	—	5500
,,	...	Public offices	23	1700

II.—Rural Districts *and Contributory Places.*	Purpose.	Years	Amount.
			£
Barnsley (*Carlton*) ...	Land for sewage disposal	50	300
,, ,, ...	Sewerage and disposal	30	3600
Halifax (*Norland*) ...	Water supply	30	800
,, (*Upper Greetland*)...	,,	30	1570
Hemsworth (*Brierley*) ...	Water supply	30	307
,, (*Havercroft*) ...	,,	30	138
,, (*Hemsworth*) ...	,,	30	1283
,, ,, ...	Depôt	33	225
,, (*Ryhill*) ...	Water supply	30	138
,, (*Shafton*) ...	,,	30	100
,, (*South Elmsall*)	,,	30	145
,, ,, ...	Sewerage and disposal	30	2852
,, (*South Hiendley*)	Water supply	30	146
,, (*South Kirkby*)	,,	30	465
,, ,, ...	Sewerage and disposal	30	1448
Hunslet (*Templenewsam*) ...	Sewerage	30	2150
Knaresbro' Rural ...	Steam road roller	10	500
,, (*Knaresbro' Outer*)	Sewerage	20	740
Leeds (*Roundhay*) ...	Private street improvement	3	6750
,, ,, ...	Sewerage	20	2100
Penistone (*Silkstone*) ...	Sewerage and disposal	30	2050
Pontefract (*Brotherton*) ...	Land for sewage disposal	15	1533
,, ,, ...	Sewerage and disposal	30	3367
,, (*Glass Houghton*)	,,	32	895
Ripon (*Markington*) ...	New road	20	320
Rotherham (*Aston*) ...	Sewerage and disposal	24	800
,, (*Brinsworth*) ...	,,	34	866
,, (*Thrybergh*) ...	Water supply	30	635
,, (*Whiston*) ...	Sewerage and disposal	34	866
Settle Rural ...	Public offices	15	270
,, ...	,,	30	4600
Skipton Rural ...	Hospital purposes	27	4571
Wortley (*Bradfield*) ...	Water supply	30	3750

III.—Joint Hospital District.	Purpose.	Years	Amount.
			£
Brighouse Joint Hospital Board	Hospital purposes	20	1000
Oakwell Joint Hospital Board	,,	27	13000
Wath, Swinton, Greasborough and North Rotherham Joint Hospital Board	,,	30	9000

Provisional Orders granted and confirmed during 1899, under the Public Health Act, 1875.

District.	Object.
Luddendenfoot Joint Sewerage District	Altering a Confirming Act
Oakwell Joint Hospital District ...	Altering certain Confirming Acts
Ripon City	Altering the Ripon Corporation Act, 1886
Rotherham Borough	Altering the Rotherham Corporation Act, 1896
Rotherham Rural (*Aston-cum-Aughton Contributary Place*)... ...	Compulsory purchase

Local Acts of Parliament were obtained by West Riding Authorities during 1899 as follows:—Bradford Tramways and Improvement Act, Burley-in-Wharfedale Urban District Water Act, Goole Urban District Council Act, Horsforth Urban District Council Waterworks Act, Leeds Corporation Act, Sheffield Corporation (Markets) Act, Skipton Urban District Gas Act, and Wakefield Corporation Act.

Urban Powers conferred on Rural District Councils during 1899.

Rural Sanitary Authority.	Section of Public Health Act.	Contributory Places affected.
Doncaster ...	1875 Act—Section 42 ...	Conisborough and Bawtry
,, ...	Private Streets Act 1892 (except sewering)	Wheatley special drainage area
Halifax ...	1875 Act—Section 160 (1)...	Clifton, Norwood Green and Coley
,, ...	,, Section 165 ...	Norwood Green and Coley
,, ...	,, Section 42. Also Sections 24, 36 and 37 of the P.H.A.A 1890	The whole District
Hemsworth ...	1875 Act—Section 42 (street watering)	Hemsworth
,, ...	,, Section 171 (2) (as to fires)	South Kirkby
,, ...	,, Section 44 ...	Ackworth, Great Houghton, Hemsworth, Ryhill, South Elmsall, South Hiendley and South Kirkby
Leeds ...	1875 Act—Sections 150, 152 and 154	Roundhay
Ripon ...	1875 Act—Section 160 (1)	Bishopton, Littlethorpe, and Sharow

Rural Sanitary Authority.	Section of Public Health Act.	Contributory Places affected.
Sedbergh ...	1875 Act—Sections 157, 158, 169 (2, 3) 170	The whole district
,, ...	P.H.A.A. 1890— Sections 23 (1, 2, 4) 25, 33	The whole district
Selby ...	P.H.A.A. 1890—Sections 23 (1, 2, 4) 25, 33	The whole district The whole district
,, ...	1875 Act—Sections 157 and 158	The whole district
Settle ...	1875 Act—Section 155. Also Section 3 of the Buildings in Streets Act	Bentham, Burton-in-Lonsdale, Giggleswick, Hellifield, Ingleton, Langcliffe, Long Preston, Settle
,, ...	1875 Act—Section 160 (3)...	The whole district
,, ...	,, Section 154 (widening)	Bentham
Skipton ...	1875 Act—Section 150 (except sewering). Also Section 41 of P.H.A.A. 1890	Parts of Glusburn and Thornton

Bye-laws confirmed during 1899.

Subject.	West Riding Sanitary Authorities adopting same.
Common Lodging Houses ...	Ardsley East and West, Knottingley
Nuisances	Ardsley East and West, Darton, Handsworth, Knottingley, Wombwell
Offensive Trades ...	Ardsley East and West
Scavenging and Cleansing ...	Knottingley
Slaughter Houses ...	Ardsley East and West, Knottingley, Settle Rural
Streets and Buildings ...	Ardsley, Ardsley East and West, Hipperholme, Knottingley, Selby, Wombwell, Hemsworth Rural, Selby Rural
Pleasure Grounds ...	Brighouse, Darfield, Selby
Hackney Carriages ...	Hebden Bridge, Skipton Rural

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.—The following West Riding Authorities are reported by the Local Government Board as having, during 1899, framed Regulations under this Order, and deposited copies thereof with the Board :—

Bishopthorpe R.
Bowland R.
Brighouse
Castleford
Golcar
Honley
Kirkburton
Knottingley
Pudsey
Ripon
Ripon R.
Rotherham
South Crosland
Todmorden
Wakefield

Vaccination during the Ten Years 1888-97.—

The following Table shows the percentage of children (born in years stated) not accounted for up to January 31st in the second following year, as "successfully vaccinated," "insusceptible of vaccination," "had small pox," or "died unvaccinated."

ANNUAL PERCENTAGES OF UNVACCINATED CHILDREN.

	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897
England and Wales ...	8·5	9·9	11·3	13·4	14·9	11·7	19·2	20·5	22·9	22·7
London ...	7·4	11·6	13·9	16·4	18·4	14·1	20·6	24·9	26·4	29·1
West Riding ...	12·2	15·0	16·6	17·5	17·3	18·2	20·8	20·5	21·9	20·8
Unions :—										
Barnsley ..	6·0	12·0	11·2	8·5	5·7	5·2	6·1	8·2	10·4	11·7
Bradford ...	7·3	20·6	24·3	31·0	22·7	20·8	27·8	26·9	32·3	40·3
Bramley ...	4·4	7·5	8·5	10·0	8·1	13·3	21·2	12·9	21 9	22·2
Dewsbury ...	34·2	37·3	39·1	32·5	37·7	41·3	47·6	49·5	57·3	61·3
Doncaster ...	3·6	6·6	7·2	8·6	10·6	11·5	13·9	13·2	15·8	14·2
Ecclesall Bierlow ...	4·0	4·0	5·1	5·6	5·5	4·8	4·7	4·3	4·4	4·8
Goole ...	3·1	5·2	4·4	4·8	7·3	6·9	12·0	11·9	8·7	13·3
Great Ouseburn ...	2·7	2·7	4·0	5·3	3·7	2·0	3·1	2·5	2·7	4·0
Halifax ...	14·0	60·0	69·6	74·9	74·3	78·5	86·2	82·3	84·8	76·7
Hemsworth ...	4·1	6·7	5·8	5·5	6·4	7·8	6·9	8·2	8·9	14·9
Holbeck ...	2·4	4·4	4·8	4·5	6·0	4·3	4·4	5·8	7·4	6·5
Huddersfield ...	1·3	2·2	1·6	2·5	2·3	2·9	2·2	2·8	3·0	3·3
Hunslet ...	4·3	3·9	4·0	3·3	3·8	3·7	5·0	5·8	6·0	7·5
Keighley ...	71·9	81·1	80·1	83·1	83·2	82·6	85·8	86·4	90·7	32·8
Knaresborough ...	5·8	11·3	12·7	16·9	19·1	15·2	21·5	34·2	39·4	46·3
Leeds ...	2·2	5·7	5·1	5·5	5·5	5·8	7·2	6·9	6·3	7·2
North Bierley ...	5·6	11·7	15·8	22·0	25·9	26·5	27·8	25·0	28·0	32·9
Pateley Bridge ...	0·6	1·7	2·1	1·4	2·0	0·5	2·9	6·0	17·2	24·4
Penistone ...	3·1	3·1	2·3	3·9	3·2	2·2	12·6	7·0	4·7	6·0
Pontefract ...	4·8	5·2	5·0	3·8	4·8	5·8	8·8	7·6	6·6	6·7
Ripon ...	8·5	10·3	14·5	10·4	9·7	15·8	14·0	18·1	11·1	13·7
Rotherham ...	4·6	5·4	4·1	5·4	5·4	6·6	6·2	8·0	7·3	6·8
Saddleworth ...	3·4	14·2	38·8	69·0	72·0	74·4	72·2	77·3	74·5	16·5
Sedbergh ...	1·9	3·6	0·0	0·0	1·9	1·0	2·8	6·0	7·2	0·0
Selby ...	2·1	2·4	1·4	5·5	3·7	4·7	5·7	4·6	4·3	3·5
Settle ...	2·6	3·2	5·9	4·2	6·8	10·9	11·0	16·4	15·0	20·8
Sheffield ...	4·1	5·1	5·8	6·9	6·6	7·6	9·5	10·3	8·7	9·4
Skipton ...	7·3	13·8	22·7	25·8	38·4	46·2	60·0	63·1	71·7	22·8
Tadcaster ..	3·8	4·4	4·6	4·3	4·2	6·0	4·0	4·5	6·2	6·7
Thorne ...	7·0	8·8	9·3	12·5	15·8	10·9	19·2	16·4	20·2	16·9
Wakefield ...	3·4	5·1	4·6	5·3	5·5	6·0	7·3	7·1	8·2	8·9
Wetherby ...	8·6	7·1	6·2	8·7	10·4	10·4	12·5	8·3	5·4	2·5
Wharfedale ...	6·4	16·3	14·0	13·5	11·1	14·1	16·8	20·1	21·6	22·4
Wortley ...	3·9	5·5	7·0	5·9	6·9	9·0	10·0	10·3	9·0	8·9

Thus, in 1897 (the latest year for which returns are available) there were, in the West Riding Registration County, 78,875 births, of which 15,682, or 19·9 per cent., were "not accounted for" up to 31st January, 1899, and probably went to add to the unvaccinated population; while 49,981 or 63·3 per cent., were successfully vaccinated. These are percentages of *births* only. The increments to the whole population represented by the same figures are 0·59 per cent. of unvaccinated and 1·9 per cent. vaccinated. The remaining 13,212 forming 16·8 per cent. of the total births, comprise 350 "insusceptible of vaccination;" 9,686 "died unvaccinated," 737 "vaccination postponed," and 2,439 in respect of whom certificates of "conscientious objections" were obtained.

[The following is a reduced specimen of a handbill drawn up by the County Medical Officer for distribution in districts where diphtheria is prevalent.]

DIPHTHERIA.

In consequence of the prevalence of diphtheria the attention of the public is earnestly called to the following

NOTICE.

Diphtheria is a dangerous and often fatal, disease to which children are especially liable, but from which adults are by no means exempt. The chief source of infection is contact with those suffering from the disease.

PRECAUTIONS:—

(1) All persons suspected of having diphtheria should be promptly isolated and medical advice at once sought, as a few hours delay in the proper treatment may be fatal.

(2) Every case of sore throat, even the mildest, should at present be viewed with suspicion and a medical opinion taken.

(3) Children from infected houses should not be sent to school, and their parents should not visit other houses. Neighbours should not be allowed in infected houses.

(4) Any insanitary conditions should be promptly reported to the Sanitary Inspector, as they render persons exposed to them more liable to attack.

(5) Cats and other domestic animals may carry the infection, and should not be fondled or caressed, especially by children.

(6) The infection persists for a long time after the patient has apparently recovered, and it is necessary that a medical opinion should be obtained before such a person is allowed to again mix with others.

(7) All milk should be scalded shortly before use.

(8) A plentiful supply of fresh air (night and day) is an important means of preventing the disease.

(9) The close contact of numbers of children at play or elsewhere should be avoided as far as possible, and they should not be permitted to play near drain openings, ashpits, or in other objectionable places.

(Signed)..................

Medical Officer of Health.

Date

[Here follows the usual warning, referring to the penalties imposed by the Public Health Act with regard to the exposure of infected persons or things.

DAIRIES, COWSHEDS, & MILKSHOPS ORDERS, 1885-1899.

[*The following Notes have been drawn up by the West Riding Sanitary Committee and widely distributed during the year.*]

SUGGESTIONS

OF

THE WEST RIDING SANITARY COMMITTEE.

The first requirement of Local Authorities aiming at the proper sanitary supervision of cowsheds is the adoption of Regulations under Article 13 of the above Order (see the Model Regulations recently issued by the Local Government Board). Experience has proved that those "Models," owing to their necessary general character for the whole country, do not afford that practical assistance to Sanitary Authorities and their officials which is desirable. Absence of reasonable uniformity of action in this matter is conspicuous throughout the West Riding, and this is doubtless due to the want of more definite principles.

An attempt to overcome these difficulties has induced the West Riding Sanitary Committee to authorise the preparation of the following suggestions which may be regarded only as supplementary to the Model Regulations, not binding in law and merely indicating what the Sanitary Authority should aim at in promoting the sanitation of cowsheds and the healthiness of the cattle housed therein.

I. NEW BUILDINGS, or premises proposed to be newly occupied as Cowsheds.—Under Article 7 (2) of the Order, the Sanitary Authority are entitled to one month's notice in writing before any such premises are newly occupied as cowsheds. Before passing the plans for any new cowshed the Authority should see that the materials proposed to be used, and the details of construction, are in accordance with the building by-laws of the district.

Construction.—The walls should be covered internally to a height of 4-ft. 6-in. with a smooth impervious material, so as to provide an easily washable surface. The roof should be externally covered with slate or tiles (not corrugated iron, because of the difficulty in regulating temperature, etc.) Gutters or spouts should be provided to carry the rain water to a fall pipe, which should not discharge into the midden but into the surface drainage system so as to avoid dampness of walls and foundations. In places where other water supply is not convenient the rainwater might be conducted into a cistern, and used for cleansing the manure channel, floor, &c.

The distance of the cowshed from dwelling houses, schools, workshops, or public buildings should not be less than 25 feet. The cowshed should have two sides at least free from obstruction, so as to admit of free lighting and ventilation. The building should be not less than eight feet high internally at the eaves. The width or distance between the front and back main walls should be sufficient to allow for a feeding passage between the wall and manger, a trough-manger and hayrack, stall, a manure trench, and a cleansing passage. For example :—

3ft. 3-in. to 4-ft. 0-in. for the passage between the wall and manger.
2-ft. for the trough manger and brick work.
5-ft. 9-in. to 6-ft. 0-in. for the stall.
2-ft. 0-in. to 2-ft. 6-in. for the manure trench, which should be 3-in. deep and carried from one end of the shed to the other.
5-ft. 0-in. to 5-ft. 6-in. for the cleansing passage.

Where a double row of stalls is wanted, the section might be the duplicate of the above with the exception that the raised passage in the centre for general use might remain at 5 feet 6 inches in width.

The width of each stall should be about 4 feet for a single cow, and from 6-ft. 3-in. to 7 feet for a double stall.

LIGHTING.—Light should penetrate every nook and corner. To obtain this every cowshed should be provided with windows, or lights in the roof. Three square feet of window space per cow is suggested as a good working average.

VENTILATION.—The windows should be so constructed that one-half, will open inwards so as to admit air and deflect it upwards above the animals. It is well to provide a number of permanent openings in the walls, so designed that the external aperture is four or five times smaller than the internal orifice. These are placed at about seven feet above the floor, and the air which enters by such cone-shaped openings becomes readily diffused. Another simple method is to place two-inch tile pipes in the wall near the eaves with two inches of rise from the outside inwards. Outlets for the egress of foul air should be provided in the roof—or, if there is a loft or ceiling a chimney is desirable. Louvre ventilators may be employed, or the ridge may be elevated and provided with outlets at proper intervals. Roughly speaking, 30 to 40 square inches of inlet area per animal is advisable, while the outlets should be at least equal to the inlets or, preferably, a little more. The external door should be divided crosswise, so that the top half may be left open when desired.

Increased cubic space is of little value without proper ventilation.

The Local Government Board have advised that those cowsheds where the animals are only taken out for drinking purposes cannot be interpreted as coming under Part I. of the Model Regulations, and therefore are not exempt from the requirements of Part II. as to cubic space

Flooring.—The floor of a cowshed should not in any part be below the surface of the ground. It should be properly laid and graded so as to take away all liquids falling upon it. Concrete covered with cement properly furrowed is perhaps the best flooring, because no filth can accumulate in the joints as in ordinary paving. If flags or setts are used they should be laid on a bed of concrete and jointed with cement.

Drainage.—The floor of the standing should have a fall of two or three inches from the manger to the manure channel, whilst the floor of the channel itself should have a fall outwards of at least half-an-inch in cross section, and a fall longitudinally of half-an-inch per single stall, so as to drain away the liquids; the floor itself should have a similar fall. The channel should discharge on to a trapped gully outside the cowshed leading to a liquid manure tank. No covered drain should exist inside the cowshed.

Midden.—A proper middenstead should be provided in accordance with the by-laws as to prevention of nuisances. Its walls should be made of hard impervious material, and the roof should be supported by means of piers, thereby providing for adequate ventilation and the exclusion of rain. The flooring should also be impervious.

Yard.—The yard and approaches to the cowshed should be properly formed, graded and paved to take away the surface water, which should not discharge into the midden.

Manger.—A half-round salt-glazed trough, rising 12 or 15 inches above the floor, is much superior to a wooden tub. A hay-rack immediately over this trough obviates the placing of fodder on the floor. Neither the foddering passage nor any part of the cowshed should be used for the storage of foods. A proper food store should be provided.

Water.—Where the water supply is not derived from a public source, great attention should be given to its protection.

General.—No poultry or pigs should be kept in any part of the cowshed, and it is desirable also that horses and calves should be excluded.

A thermometer in the cowshed is useful.

II. EXISTING COWSHEDS.—There are no doubt some buildings used as Cowsheds which were not originally constructed for that purpose and which cannot, except by reconstruction, be made to satisfy even the most elementary hygienic requirements. On the other hand there are a great number of existing cowsheds which although not fulfilling all the conditions set forth above may yet be rendered workable by providing them with abundance of light, efficient ventilation, impervious flooring, and an adequate supply of water. These essentials CAN be secured and should be insisted upon by the Sanitary Authority.

III. REGISTER.—A Register should be kept by every Sanitary Authority in which to record the results of periodical inspections. No cowshed should be used for housing a greater number of cows than is specified on the register. Amongst other information locally desirable the following items are suggested :—

1. Name and address of person registered.
2. Situation of premises.
3. Owner of premises.
4. Number of sheds with size—length, width, height, and cubic space per cow.
5. Number of cows in each shed.
6. Flooring—material and condition of
7. Walls, material—rough or smooth.
8. Water supply—source, position.
9. Lighting—number and size of windows or other lights.
10. Ventilation—Number and size of permanent openings. Number and size of openings capable of regulation.
11. Midden—distance from cowshed, open or covered, disposal of liquid manure.
12. Yard—formation, paving, drainage.
13. Cleanliness—general condition of floors, walls, midden, yard.
14. General drainage system.
15. Disposal of drainage.

JAMES ROBT. KAYE,

County Medical Officer.

Wakefield, 1901.

ROYAL COMMISSION ON SEWAGE. DISPOSAL.

[*The following brief notes from the Interim Report of the Commissioners, issued in July, 1901, are inserted here for the information of the various medical officers and sanitary officials of the West Riding.*]

The two great questions upon which the Commission were appointed to report are :—

“(A) What method or methods of treating and disposing of sewage “(including any liquid from any factory or manufacturing process) may properly “be adopted, consistently with due regard for the requirements of the existing “law, for the protection of public health, and for the economical and efficient “discharge of the duties of Local Authorities.”

“(B) If more than one method may be so adopted, by what rules, in “relation to the nature or volume of sewage, or the population to be served, or “other varying circumstances or requirements, should the particular method “of treatment and disposal to be adopted be determined.”

The Interim Report, however, only deals at present with three specific points arising out of the above, viz. :—

(1) **“Are some sorts of land unsuitable for the purification “of sewage?”** On this point the conclusions of the Commission are given as follows :—“We doubt if any land is entirely useless, but in the case “of stiff clay and peat lands the power to purify sewage seems to depend on “the depth of the top soil.”

“There are, of course, numerous gradations in the depths of top soil which “are met with in nature, and it is not easy to draw the line between lands “which contain a sufficient depth to justify their use, and lands which do not.”

“We are, however, forced to conclude that peat and stiff clay lands are “generally unsuitable for the purification of sewage, that their use for this “purpose is always attended with difficulty, and that where the depth of top “soil is very small, say six inches or less, the area of such lands which would “be required for efficient purification would in certain cases be so great as to “render land treatment impracticable.”

“Further information with regard to this point will be available when our “investigation of Land Treatment is completed.”

(2) **“Is it practicable uniformly to produce by artificial “processes alone an effluent which shall not putrefy, and so “create a nuisance in the stream into which it is discharged?”**

The Commission is satisfied “that it is practicable to produce by artifical “processes alone either from sewage, or from certain mixtures of sewage and "trade refuse such, for example, as are met with at Leeds and Manchester, "effluents which will not putrefy, which would be classed as good according "to ordinary chemical standards, and which might be discharged into a "stream without fear of creating a nuisance."

The Report continues, "We think therefore, that there are cases in "which the Local Government Board would be justified in modifying, under "proper safeguards, the present rule as regards the application of sewage to "land."

"No general rule as to what these safeguards should be can be laid down "at present, and indeed it will, probably, always be necessary that each case "should be considered on its own merits."

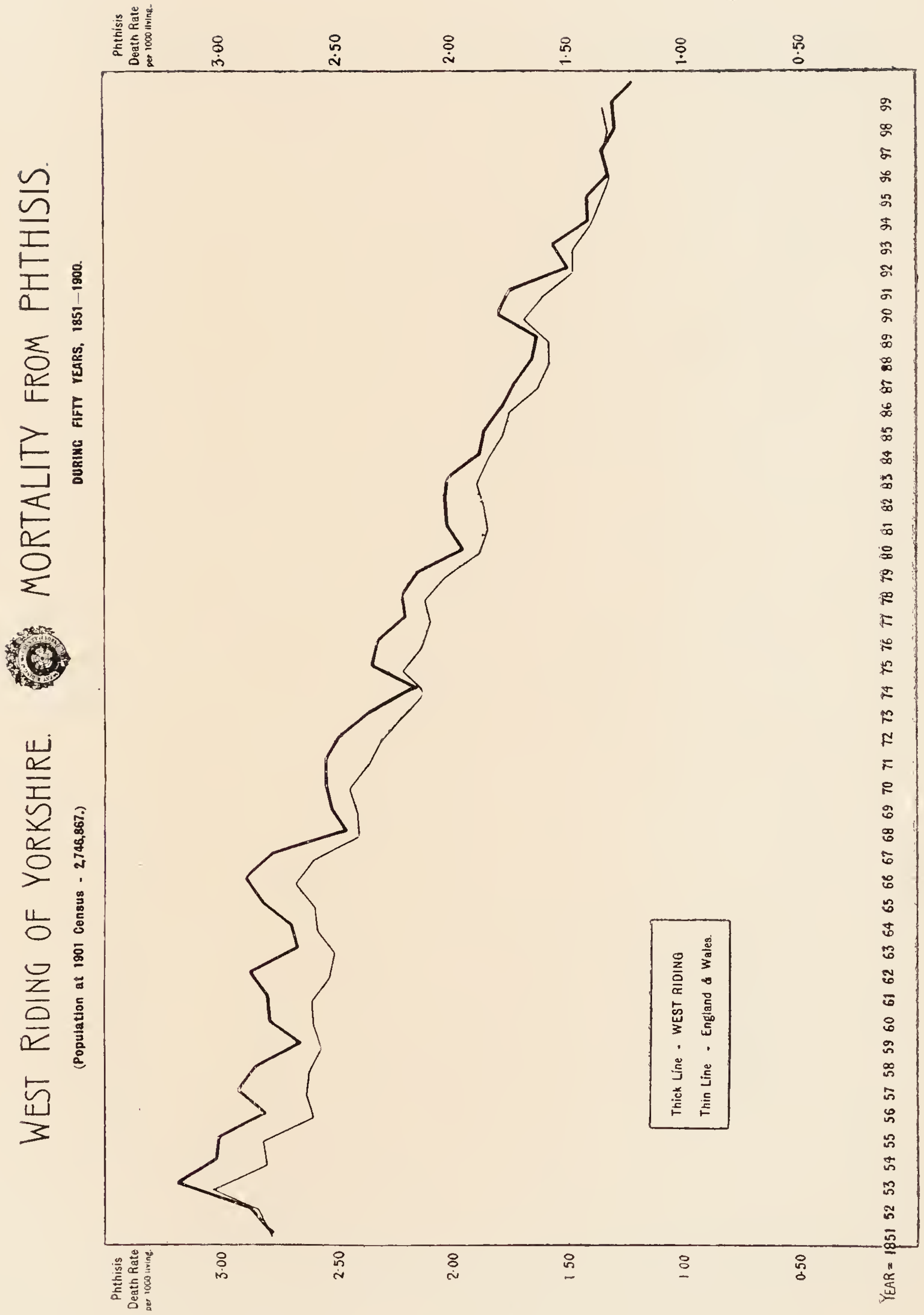
(3) "What means should be adopted for securing the "better protection of our rivers?"

On this general question the Commissioners express themselves as follows :—"We consider it of the utmost importance that the simplest possible "means should be provided for adequately protecting all our rivers, and we "are further of opinion that it will be desirable, probably for some time to "come, that scientific experiments should be carried on in order to ascertain "all the real dangers of pollution, against which they should be protected."

"In the present state of knowledge, and especially of bacteriology, it is "difficult to estimate these dangers with any accuracy, and it seems quite "possible that they should be either exaggerated or undervalued according to "the predisposition of those who have to deal with them. An authority, "guided by medical considerations, might not unnaturally be inclined to "insist on a certain degree of purity which may ultimately prove in certain "cases to be uncalled for, while another authority, with its mind fixed upon "economy, might shrink from taking essential precautions."

"It is, perhaps, scarcely for us to say what arrangements should be "made, but we are of opinion that the general protection of our rivers is a "matter of such grave concern as to demand the creation of a separate "commission, or a new department of the Local Government Board, which "shall be a Supreme Rivers Authority, dealing with matters relating to rivers "and their purification, and which, when appeal is made to them, shall have "power to take action in cases where the local authorities have failed to do "so."

No. 1.

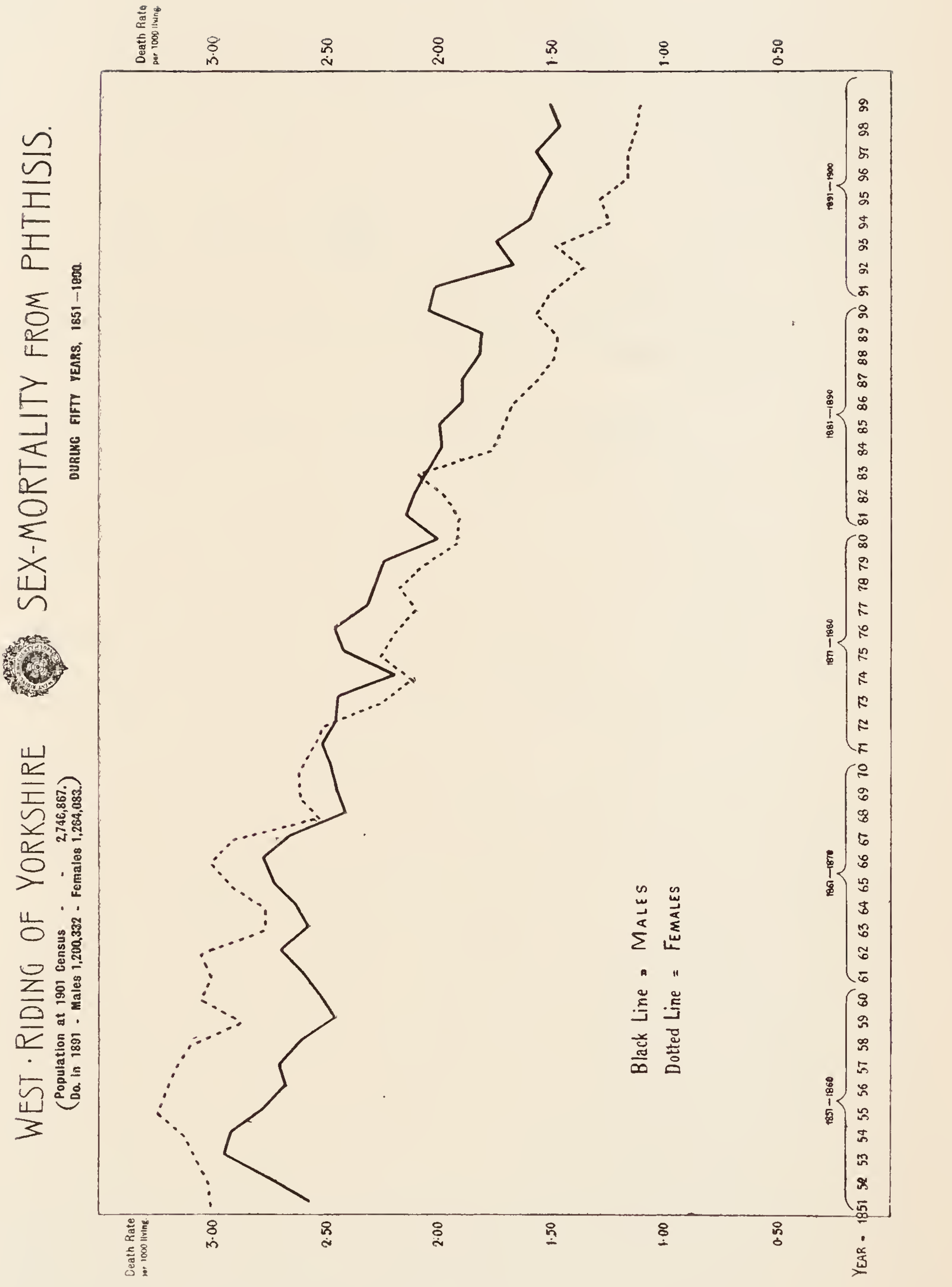


WEST RIDING OF YORKSHIRE. MORTALITY FROM PHTHISIS.

(Population at 1901 Census - 2,746,867.)

DURING FIFTY YEARS, 1851—1900.

No. 2.

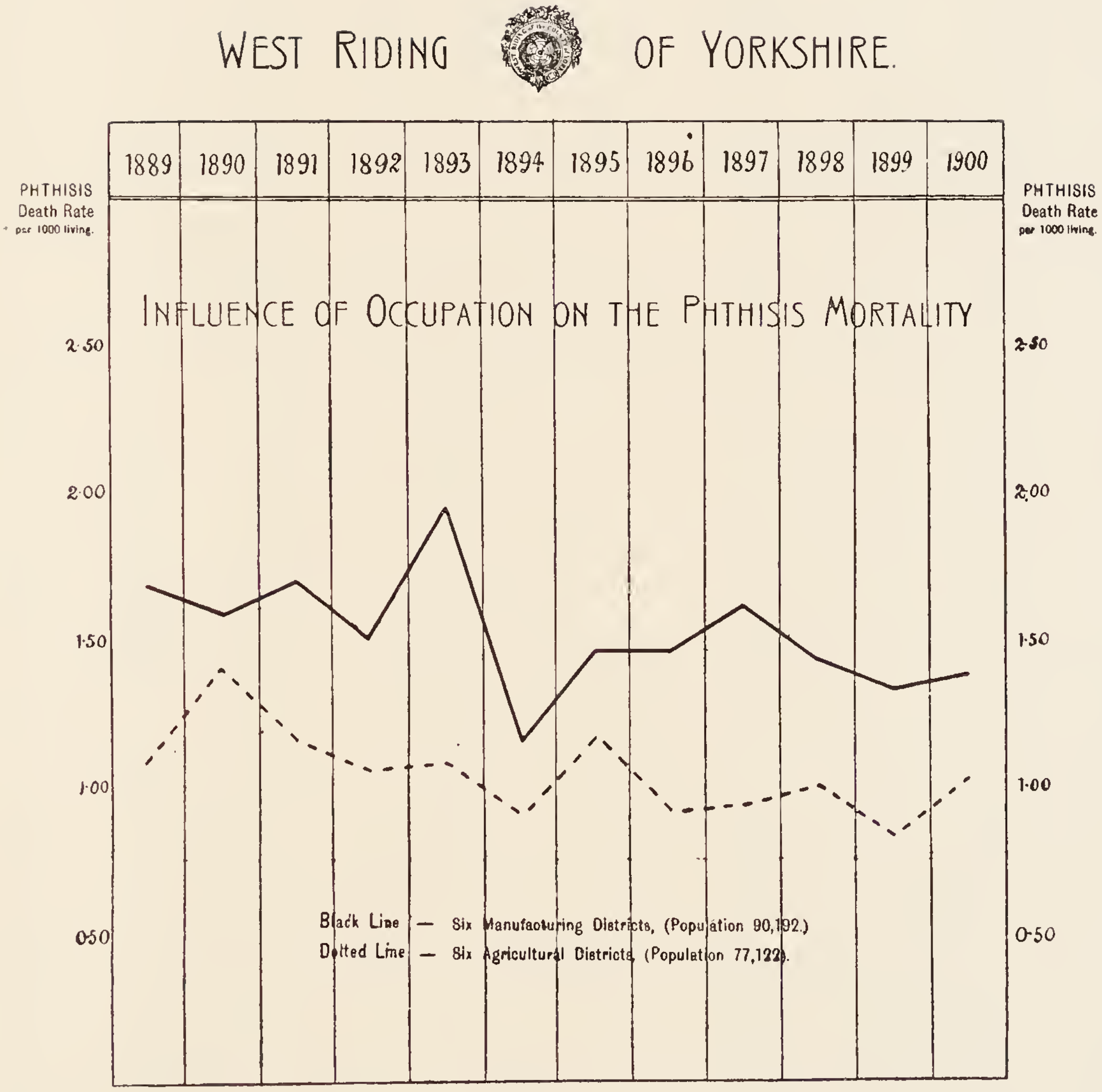


WEST·RIDING OF YORKSHIRE SEX-MORTALITY FROM PHTHISIS.

(Population at 1901 Census - - 2,746,867.)
(Do. in 1891 - Males 1,200,332 - Females 1,264,083.)

DURING FIFTY YEARS, 1851–1900.

No. 3.


WEST RIDING OF YORKSHIRE.
INFLUENCE OF OCCUPATION ON THE PHTHISIS MORTALITY
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900
PHTHISIS Death Rate per 1000 living.
2·50
2·00
1·50
1·00
0·50
PHTHISIS Death Rate per 1000 living.
2·50
2·00
1·50
1·00
0·50
Black Line — Six Manufacturing Districts, (Population 90,192.)
Dotted Line — Six Agricultural Districts (Population 77,122).

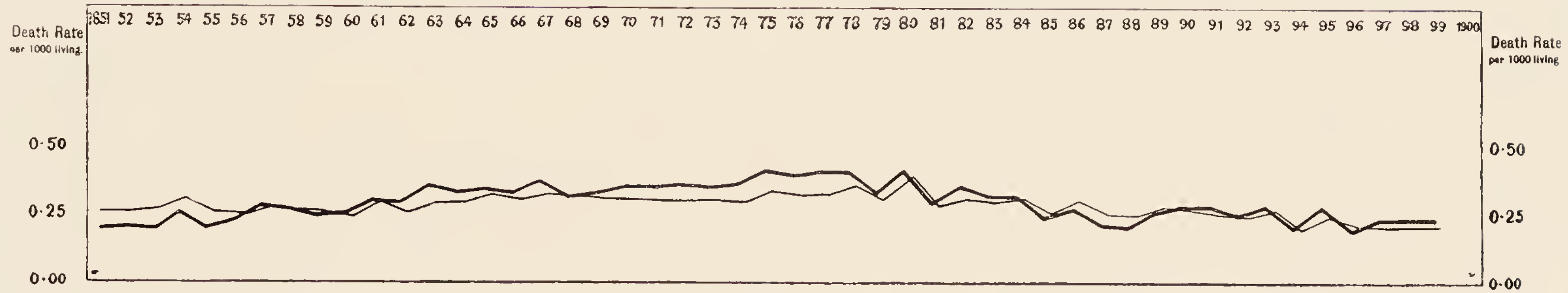
No. 4.

WEST RIDING OF YORKSHIRE

Population at 1901 Census - 2,748,867.

MORTALITY FROM TABES MESENTERICA.

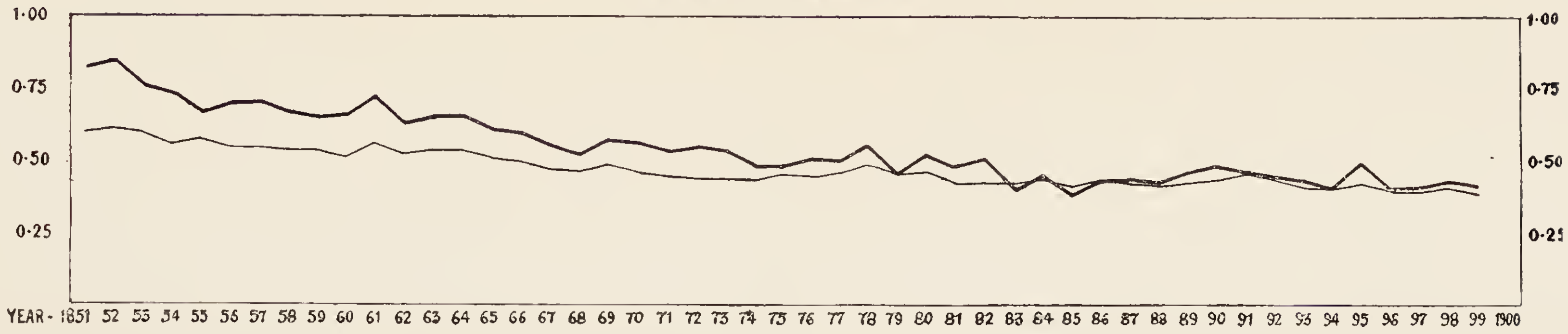
DURING FIFTY YEARS, 1851 - 1900.



[Thick Lines WEST RIDING. Thin Lines England and Wales.]

MORTALITY FROM OTHER FORMS OF TUBERCULOSIS THAN PHTHISIS & TABES MESENTERICA.

DURING FIFTY YEARS, 1851—1900.



No. I. Births, Deaths, Annual Rates, etc., 1900.

SANITARY DISTRICT.	AREA (Acres)	Estimated POPULATION.	BIRTHS.			DEATHS (Nett).			TOTAL DEATHS Registered in District.	DEATHS (Nett) AT SUBJOINED AGES.						ANNUAL RATES per thousand of Estimated Population.					Infant Mortality (*Deaths under 1 yr. per 1000 Births*).
			Males	Females	Total	Males	Females	Total		Under 1 Year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Birth Rate	Death Rate	Zymotic Death Rate	Phthisis Death Rate	Respiratory Death Rate	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
I. URBAN.																					
Altofts	1837	4006	74	75	149	34	36	70	70	26	12	4	2	20	6	37·2	17·5	3·5	0·2	2·0	174
Ardsley	1284	6092	119	91	210	54	49	103	119	37	25	3	4	22	12	34·5	16·9	2·6	0·5	3·1	176
Ardsley, East and West	3836	7392	131	146	277	74	63	137	137	53	11	4	9	39	21	37·5	18·5	2·2	0·9	3·4	191
Baildon	2605	5796	67	62	129	38	37	75	75	9	4	2	8	30	22	22·3	12·9	0·7	1·2	2·2	70
Balby-cum-Hexthorpe	1613	6550	123	101	224	66	55	121	113	43	10	3	3	30	32	34·2	18·5	1·7	0·6	2·4	192
Barkisland	2421	1736	17	13	30	7	13	20	20	2	–	–	2	7	9	17·3	11·5	0·6	0·6	2·9	67
Barnoldswick	2129	6170	101	94	195	48	50	98	95	33	10	4	8	33	10	31·6	15·9	1·3	0·7	4·5	169
Barnsley Borough	2386	40629	669	676	1345	439	429	868	900	246	153	46	40	229	154	33·1	21·4	3·8	1·3	3·1	183
Batley Borough	2039	30198	433	436	869	291	321	612	585	148	100	33	30	185	116	28·8	20·3	3·3	1·7	3·4	170
Bingley	11901	18367	232	210	442	165	182	347	347	67	52	24	14	105	85	24·1	18·9	1·7	1·0	3·8	152
Birkenshaw	925	2198	27	35	62	22	19	41	41	7	3	–	3	12	16	28·2	18·7	*nil*	1·8	4·1	113
Birstall	1233	6557	96	78	174	69	65	134	134	40	28	6	5	28	27	26·5	20·4	2·9	1·5	3·1	230
Bolton-on-Dearne	2323	3509	70	88	158	26	35	61	61	23	9	1	5	15	8	45·0	17·4	1·4	1·4	3·1	146
Brighouse Borough	2224	21653	270	243	513	202	197	399	378	78	55	29	15	136	86	23·7	18·4	1·8	1·8	4·6	152
Burley-in-Wharfedale	3133	3256	41	34	75	23	30	53	54	11	2	5	1	16	18	23·0	16·3	1·8	0·9	0·6	147
Calverley	2113	2666	24	27	51	30	22	52	52	4	6	4	1	13	24	19·1	17·6	*nil*	0·4	0·8	78
Castleford	564	17115	348	315	663	174	140	314	314	132	55	12	10	82	23	38·7	18·3	2·3	1·3	3·3	199
Clayton	1464	5087	58	51	109	36	30	66	115	7	3	3	3	31	19	21·4	13·0	0·6	1·4	2·0	64
Clayton West	1140	1549	15	11	26	13	14	27	27	1	1	–	–	16	9	16·8	17·4	*nil*	1·3	2·6	39
Cleckheaton	1755	12470	163	144	307	86	104	190	191	39	22	11	11	55	52	24·6	15·2	1·0	1·8	2·6	127
Cudworth	1556	3227	61	65	126	34	30	64	62	31	13	2	–	13	5	39·0	19·8	3·4	*nil*	4·6	246
Darfield	2017	4130	85	90	175	32	21	53	53	21	8	4	2	11	7	42·4	12·8	0·5	1·7	1·5	120
Darton	4358	7618	136	121	257	71	60	131	131	41	19	11	7	28	25	33·7	17·2	2·4	0·5	3·4	160
Denby-and-Cumberworth	4300	3275	39	37	76	18	27	45	45	8	6	2	3	16	10	23·2	13·7	1·5	0·3	1·5	105
Denholme	2540	2941	34	34	68	26	33	59	60	11	6	2	4	20	16	23·1	20·1	0·7	1·7	4·1	162
Dewsbury Borough	1468	28181	334	321	655	332	310	642	642	151	57	20	23	248	143	23·2	19·7	1·8	1·3	4·4	231
Dodworth	1916	3028	61	45	106	33	18	51	51	13	15	1	2	8	12	35·0	16·8	3·3	0·3	3·0	123
Doncaster Borough	1691	28688	404	433	837	323	273	596	651	205	61	22	21	149	138	29·2	20·8	3·5	1·5	3·5	245
Drighlington	1136	4225	63	49	112	31	31	62	62	20	9	3	3	14	13	26·5	14·7	1·2	0·9	2·4	179
Elland	1992	10380	95	108	203	83	81	164	155	30	10	3	15	61	45	19·6	15·8	1·2	1·8	2·4	148
Emley	3556	1427	14	15	29	15	8	23	23	1	2	1	4	6	9	20·3	16·1	0·7	1·4	2·8	35
Farnley Tyas	1785	492	4	3	7	2	1	3	3	–	–	–	–	–	3	14·2	6·1	*nil*	*nil*	*nil*	*nil*
Farsley	814	5560	61	61	122	37	48	85	83	16	5	2	5	32	25	21·9	15·3	0·2	0·7	3·1	131
Featherstone	4429	11671	236	213	449	133	95	228	226	101	38	8	11	47	23	38·5	19·5	2·9	0·9	4·4	225
Flockton	1108	1248	20	19	39	17	6	23	23	9	3	1	–	3	7	31·3	18·4	3·2	0·8	3·2	231
Gildersome	993	3080	42	42	84	16	25	41	41	7	2	2	3	12	15	27·3	13·3	1·3	0·3	1·0	83
Golcar	1593	9248	128	113	241	88	65	153	153	40	17	8	16	35	37	26·0	16·5	1·2	1·7	1·9	166
Gomersal	1096	3605	33	43	76	30	40	70	70	8	10	8	6	17	21	21·1	19·4	1·7	*nil*	5·0	105
Goole	1441	16486	306	274	580	156	133	289	299	76	44	16	13	78	62	35·2	17·5	2·3	0·9	3·1	131
Greasborough	2412	3137	66	39	105	22	24	46	46	14	4	1	3	9	15	33·5	14·7	2·6	1·3	1·9	133
Greetland	641	4457	42	33	75	33	41	74	72	8	9	2	–	26	29	16·8	16·6	0·7	0·7	2·7	107
Guiseley	1554	4520	59	65	124	40	31	71	71	8	14	3	4	26	16	27·4	15·7	1·8	1·5	3·3	65
Gunthwaite	2057	335	5	2	7	5	1	6	6	2	–	1	1	1	1	20·9	17·9	*nil*	*nil*	3·0	286
Handsworth	3638	13820	289	247	536	122	115	237	236	91	38	12	6	56	34	38·8	17·1	2·9	0·8	1·9	170
Harrogate Borough	1268	25354	198	185	383	159	149	308	342	58	25	20	19	95	91	15·1	12·1	1·4	0·7	2·4	151
Haworth	2234	7458	66	81	147	57	73	130	128	22	21	6	11	35	35	19·7	17·4	2·1	1·7	2·8	150
Hebden Bridge	478	7441	82	63	145	49	63	112	112	16	12	–	7	36	41	19·5	15·1	0·9	0·7	3·0	110
Heckmondwike	697	9478	106	97	203	90	93	183	167	38	25	4	5	73	38	21·4	19·3	0·8	1·9	3·5	187
Hipperholme	1138	4169	38	45	83	20	28	48	48	8	3	1	4	21	11	19·9	11·5	0·2	0·5	2·9	96
Holme	3390	417	5	2	7	4	1	5	5	–	–	1	–	2	2	16·8	12·0	*nil*	*nil*	9·6	*nil*
Holmfirth	7770	9031	100	104	204	66	75	141	141	20	10	3	9	49	50	22·6	15·6	1·3	1·4	2·9	98
Honley	2175	4921	49	44	93	32	34	66	104	8	4	3	4	32	15	18·9	13·4	0·8	1·2	1·6	86
Horbury	1279	6650	95	96	191	48	50	98	95	31	11	3	5	31	17	28·7	14·7	1·1	1·2	2·9	162
Horsforth	2801	7732	91	104	195	57	47	104	103	26	9	3	5	46	15	25·2	13·4	1·0	1·0	3·0	133
Hoyland Nether	2085	12348	240	274	514	138	127	265	252	91	65	7	14	50	38	41·6	21·5	5·9	1.0	3·2	177
Hoylandswaine	2024	598	7	5	12	2	5	7	7	–	–	–	1	6	–	20·1	11·7	1·7	*nil*	1·7	*nil*
Hunsworth	1380	1350	10	9	19	14	12	26	26	–	2	2	4	11	7	14·1	19·2	2·2	3·0	4·4	*nil*
Ilkley	3822	7315	81	82	163	34	36	70	80	13	2	4	2	27	22	22·3	9·6	0·7	0·5	1·0	80
Keighley Borough	3670	41034	542	524	1066	461	414	875	869	176	148	59	45	293	154	26·0	21·3	3·5	2·1	4·4	165
Kirkburton	1286	2989	39	33	72	40	25	65	60	14	3	5	3	20	20	24·1	21·7	3·0	0·7	5·0	194
Kirkheaton	1674	2502	28	26	54	21	26	47	47	4	5	3	–	16	19	21·6	18·8	2·8	0·8	3·6	74
Knaresborough	470	4954	90	87	177	66	67	133	133	36	8	6	2	34	47	35·7	26·8	3·4	1·8	2·4	203
Knottingley	1481	5779	116	109	225	58	61	119	107	39	16	7	3	20	34	38·9	20·6	3·1	1·4	3·3	173
Lepton	1863	2777	37	32	69	25	22	47	47	12	5	–	4	13	13	24·8	16·9	0·4	2·2	1·8	174
Linthwaite	1320	6863	93	77	170	47	63	110	110	26	10	6	5	18	45	24·8	16·0	0·4	0·6	2·5	153
Liversedge	2130	13955	207	190	397	132	131	263	260	67	35	13	11	84	53	28·4	18·8	1·0	1·3	2·9	169
Luddendenfoot	768	3345	45	32	77	27	33	60	60	15	7	2	3	16	17	23·0	17·9	1·8	2·4	2·1	195
Marsden	8645	4329	60	54	114	26	24	50	50	9	13	3	3	11	11	26·3	11·6	0·7	0·2	1·8	79
Meltham	5108	5015	38	40	78	46	46	92	85	12	4	–	6	44	26	15·6	18·3	1·0	2·8	2·0	154
Methley	3492	4275	74	75	149	45	33	78	80	23	8	3	7	17	20	34·9	18·2	0·2	0·9	4·4	154
Mexborough	1293	10187	177	202	379	90	83	173	173	56	40	8	7	39	23	37·2	17·0	3·0	0·8	3·7	148
Midgley	2179	2352	23	23	46	12	28	40	40	4	2	4	1	20	9	19·6	17·0	*nil*	1·3	4·7	87
Mirfield	3393	11369	157	144	301	112	79	191	196	47	20	4	9	71	40	26·5	16·8	1·3	0·9	3·9	156
Monk Bretton	2149	3898	82	70	152	48	29	77	77	27	16	4	2	9	19	39·0	19·8	2·8	0·3	4·9	178
Morley	3381	23435	330	314	644	227	182	409	409	119	65	17	22	114	72	27·5	17·5	2·5	1·4	3·4	185
Mytholmroyd	6613	4179	31	38	69	28	18	46	44	2	6	1	1	19	17	16·5	11·0	0·2	0·2	2·4	29
Netherthong	639	718	5	9	14	6	5	11	11	2	–	–	1	6	2	19·5	15·3	*nil*	7·0	2·8	143
New Mill	5680	4632	71	68	139	42	36	78	77	15	5	1	9	18	30	30·0	16·8	0·6	1·5	2·4	108
Normanton	1227	12178	261	259	520	106	111	217	217	91	42	6	11	39	28	42·7	17·8	3·7	0·7	4·8	175
Northowram	1572	2826	44	27	71	36	29	65	65	19	6	1	0	20	19	25·1	23·0	0·7	1·8	3·5	268
Oakworth	9200	4265	43	44	87	41	47	88	88	8	15	2	5	26	32	20·4	20·6	2·1	1·9	4·5	92
Ossett Borough	5471	12718	154	156	310	112	111	223	221	63	26	8	10	68	48	24·4	17·5	1·5	1·3	3·3	203
Otley	2375	9117	147	150	297	84	73	157	163	30	11	8	6	66	36	32·6	17·2	0·9	2·0	3·1	101
Oxenhope	4249	2707	28	31	59	26	23	49	49	8	6	2	1	17	15	21·8	18·1	1·5	0·4	8·1	136
Penistone	1133	3029	41	45	86	15	18	33	33	13	4	–	1	6	9	28·4	10·9	0·3	0·7	1·0	151
Pontefract Borough	4078	13099	251	243	494	121	148	269	329	83	45	14	13	74	40	37·7	20·5	3·4	1·4	2·7	168
Pudsey Borough	2400	14792	194	180	374	118	102	220	220	48	14	11	7	81	59	25·3	14·9	1·4	0·9	3.0	128
Queensbury	1471	6440	69	61	130	50	49	99	99	14	6	6	3	41	29	20·2	15·4	1·1	1·1	3·1	108
Ravensthorpe	372	5658	68	60	128	50	53	103	101	27	18	4	6	30	18	22·6	18·2	1·8	0·7	5·8	211
Rawdon	1559	3173	41	26	67	26	14	40	40	12	2	1	1	13	11	21·1	12·6	0·6	*nil*	1·6	179
Rawmarsh	2578	14373	306	303	609	123	137	260	260	127	31	8	4	64	26	42·4	18·1	3·6	1·1	3·0	209
Ripon City	1582	8194	92	85	177	77	63	140	146	20	8	6	8	48	50	21·6	17·1	1·1	1·6	1·6	113
Rishworth	6548	920	10	8	18	12	5	17	16	2	1	–	1	7	6	19·6	18·5	*nil*	1·1	1·1	111
Rotherham Borough	6002	53313	966	990	1956	516	462	978	989	334	169	50	27	203	195	36·7	18·3	2·8	1·0	3·8	171
Rothwell	5742	11579	200	188	388	103	105	208	208	73	29	11	13	44	38	33·5	18·0	2·5	0·8	3·5	188
Royston	1022	4228	88	90	178	57	42	99	99	40	19	6	6	19	9	42·1	23·4	3·5	0·2	7·8	225
Saddleworth	17500	12402	149	146	295	102	93	195	195	18	19	5	7	95	51	23·8	15·7	0·8	1·0	1.9	61
Sandal Magna	1617	6692	114	104	218	54	64	118	118	43	15	6	9	28	17	32·6	17·6	4·2	0·6	4·5	197
Scammonden	1806	366	3	5	8	2	1	3	3	–	–	–	–	2	1	21·9	8·2	*nil*	2·7	*nil*	*nil*
Selby	3870	7653	115	127	242	69	84	153	161	26	20	9	8	52	38	31·6	20·0	3·1	1·7	2·7	107
Shelf	1302	2508	27	31	58	21	20	41	39	6	2	3	2	12	16	23.1	16·3	0·4	1·2	2·4	103
Shelley	1568	1549	19	11	30	11	10	21	21	2	3	1	–	7	8	19·4	13·6	1·3	1·9	2·6	67
Shepley	1247	1720	31	23	54	15	7	22	22	3	–	1	2	9	7	31·4	12·8	*nil*	1·7	0·6	56
Shipley	2179	25399	289	297	586	228	206	434	432	102	58	21	18	148	87	23·1	17·1	1·1	1·6	3·9	174
Silsden	7060	4269	55	50	105	44	33	77	72	11	7	3	6	28	22	24·6	18·0	2·3	1·2	4·0	105
Skelmanthorpe	1162	3335	40	43	83	21	37	58	58	14	7	2	1	13	21	24·9	17·4	1·8	0·9	5·4	169
Skipton	4245	11857	165	140	305	110	96	206	220	32	36	8	12	80	38	25·7	17·4	2·4	1·9	3·0	105
Slaithwaite	3170	4748	52	58	110	39	23	62	62	8	3	1	4	22	24	23·2	13·1	0·2	2·3	2·5	73
Soothill Nether	562	5559	68	65	133	54	48	102	102	22	8	7	6	33	26	23·9	18·3	1·6	1·8	2·9	165
Soothill Upper	1897	6083	88	78	166	41	54	95	95	18	14	6	3	31	23	27·5	15·7	1·8	0·8	3·3	108
South Crosland	1810	2982	44	31	75	26	22	48	48	8	3	1	2	19	15	25·2	16·1	1·0	0·7	4·4	107
Southowram	1825	2850	38	27	65	20	18	38	39	6	5	–	2	14	11	22·8	13·3	1·1	1·4	2·8	92
Sowerby	2399	3681	33	35	68	36	31	67	67	5	4	3	3	27	25	18·5	18·2	0·3	0·8	4·1	74
Sowerby Bridge	571	11393	114	125	239	96	84	180	171	30	26	9	5	63	47	21·0	15·8	1·8	0·9	3·8	126
Soyland	4270	3147	35	35	70	18	34	52	52	5	6	1	3	19	18	22·2	16·5	1·6	0·6	2·5	71
Springhead	1000	4700	41	59	100	37	30	67	67	13	6	3	6	21	18	21·3	14·3	0·4	3·0	2·1	130
Stainland	2335	4551	46	28	74	42	37	79	79	5	7	2	5	30	30	16·3	17·4	0·7	0·7	3·7	68
Stanley	4409	12007	231	222	453	124	87	211	214	85	32	7	10	50	27	37·7	17·6	2·3	0·9	3·0	188
Stocksbridge	3984	6499	115	105	220	80	62	142	141	37	29	16	3	43	14	34·1	22·0	5·1	2·0	5·0	168
Swinton	1700	12008	250	212	462	139	97	236	236	85	61	6	4	42	38	38·5	19·7	3·7	0·6	2·5	184
Thornhill	3602	10237	142	138	280	81	57	138	138	33	11	5	4	50	35	27·4	13·5	0·7	0·4	2·7	118
Thurlstone	8117	2973	46	39	85	33	18	51	57	11	8	2	1	18	11	28·6	17·2	1·3	2·0	4·0	129
Thurstonland	2106	870	7	7	14	5	7	12	12	2	1	1	–	5	3	16·1	13·8	*nil*	1·1	2·3	143
Tickhill	5579	1567	22	15	37	20	12	32	29	6	2	1	2	6	15	23·6	20·4	1·3	1·3	5·7	162
Todmorden Borough	12755	25347	297	274	571	223	202	425	425	85	38	18	16	162	106	22·5	16·8	1·8	0·9	3·2	149
Wakefield City	2438	37520	506	487	993	445	434	879	1055	206	157	38	38	281	159	26·5	23·4	3·8	1·4	5·2	207
Warley	3354	2650	31	29	60	19	21	40	40	8	4	1	4	8	15	22·6	15·1	0·4	1·1	2·3	133
Wath-on-Dearne	2353	8399	161	164	325	74	54	128	128	46	19	4	8	27	24	38·7	15·2	3·6	0·8	3·1	142
Wheatley	1278	3398	61	58	119	24	23	47	47	22	2	–	1	13	9	35·0	13·8	1·2	0·3	2·1	185
Whitley Upper	2053	770	6	10	16	8	12	20	18	3	3	2	2	6	4	20·8	26·0	1·3	2·6	3·9	188
Whitwood	1082	4859	87	105	192	70	57	127	127	47	35	5	5	29	6	39·5	26·1	4·3	2·3	7·6	245
Wombwell	3851	13063	277	271	548	123	106	229	229	98	30	9	17	45	30	42·0	17·5	2·5	0·7	3·8	179
Worsborough	3779	10302	223	200	423	97	84	181	171	72	31	4	4	46	24	41·1	17·6	3·7	0·7	3·4	170
Yeadon	1723	7083	102	87	189	48	64	112	112	27	15	3	4	36	27	26·7	15·8	2·0	1·1	2·7	143
Total of Urban Districts	374930	1110229	16241	15627	31868	10297	9627	19924	20282	5216	2735	890	910	5902	4271	28·7	17·9	2·2	1·2	3·4	164
II. RURAL.																					
Barnsley	9720	3981	65	73	138	27	41	68	67	28	9	3	6	13	9	34·7	17·1	1·8	0·5	3·3	203
Bishopthorpe	6410	1952	25	25	50	13	9	22	27	6	–	–	2	6	8	25·6	11·3	0·5	*nil*	1·0	120
Bowland	77027	5241	69	54	123	37	44	81	81	8	4	–	4	21	44	23·5	15·5	1·0	0·8	2·5	65
Doncaster	90397	27057	479	451	930	255	257	512	488	172	70	22	9	115	124	34·4	18·9	3·3	1·0	4·0	185
Goole	38238	7941	124	103	227	88	83	171	161	42	16	6	3	44	60	28·6	21·5	1·1	0·8	3·5	185
Great Ouseburn	46752	9561	124	107	231	87	81	168	168	42	14	4	5	38	65	24·2	17·6	1·5	0·7	1·9	182
Halifax	9728	6476	72	74	146	55	54	109	115	19	8	4	6	44	28	22·5	16·8	1·2	1·2	1·4	130
Hemsworth	34735	22571	419	451	870	189	197	386	381	152	63	24	15	77	55	38·5	17·1	2·8	0·5	3·5	175
Hunslet	6396	6682	100	105	205	53	53	106	104	32	16	4	2	31	21	30·7	15·9	3·3	0·6	2·4	150
Keighley	8130	6015	54	60	114	42	48	90	121	7	9	3	8	33	30	19·0	15·0	1·3	1·3	2·5	61
Kiveton Park	20070	6667	111	97	208	51	41	92	92	25	10	6	3	29	19	31·2	13·8	2·1	0·9	1·6	120
Knaresborough	39498	8906	225	239	464	110	106	216	216	61	19	12	8	54	62	52·1	24·3	3·5	1·7	3·3	131
Leeds	3290	3105	30	23	53	17	23	40	77	5	6	–	2	15	12	17·1	12·9	1·0	0·6	2·6	94
Pateley Bridge	75063	8018	111	89	200	74	69	143	143	24	10	6	6	48	49	24·9	17·8	0·5	1·5	3·7	120
Penistone	16213	6436	95	83	178	45	47	92	91	19	5	5	7	25	31	27·7	14·3	1·1	1·2	2·5	107
Pontefract	38980	12258	190	217	407	123	113	236	240	73	39	12	6	56	50	33·2	19·3	2·1	1·4	2·4	179
Ripon	50103	5172	70	77	147	42	45	87	87	12	6	3	2	26	38	28·4	16·8	1·0	0·6	2·3	82
Rotherham	35274	18485	291	330	621	165	145	310	310	100	58	24	11	66	51	33·6	16·8	2·3	0·5	3·5	161
Sedbergh	52665	3943	34	40	74	27	29	56	56	7	2	3	4	13	27	18·8	14·2	*nil*	1·3	1·5	95
Selby	34752	5833	90	59	149	60	62	122	117	20	8	2	5	36	51	25·5	20·9	0·9	2·1	3·1	134
Settle	151942	14300	192	154	346	96	95	191	191	31	11	8	6	55	80	24·2	13·4	0·3	0·4	1·9	90
Skipton	145757	22422	286	250	536	187	161	348	337	53	34	17	21	114	109	23·9	15·5	1·3	1·1	2·3	99
Tadcaster	72861	29226	489	466	955	291	234	525	524	137	72	25	27	123	141	32·7	18·0	2·2	1·0	3·0	143
Thorne	38486	7208	103	109	212	51	65	116	122	21	8	3	5	18	61	29·4	16·1	1·1	0·7	1·8	99
Todmorden	18276	5086	60	47	107	41	54	95	95	14	4	2	3	32	40	21·0	18·7	1·2	1·0	2·6	131
Wakefield	15657	17381	271	274	545	148	149	297	301	82	47	6	16	80	66	31·4	17·1	1·7	1·0	3·7	150
Wetherby	65750	15317	164	181	345	148	129	277	277	51	26	11	12	78	99	22·5	18·1	1·0	1·0	3·0	148
Wharfedale, N. Div.	38081	4171	39	66	105	20	33	53	81	10	2	2	4	17	18	25·2	12·7	0·5	1·2	1·0	95
Do. S. Div.	13366	4806	46	28	74	22	23	45	231	6	–	2	4	13	20	15·4	9·4	*nil*	0·2	1·9	81
Wortley	52728	45545	688	741	1429	390	408	798	990	244	149	69	25	183	128	31·4	17·5	3·9	0·8	2·8	171
Total of Rural Districts	1190571	341762	5116	5073	10189	2954	2898	5852	6291	1503	725	288	237	1503	1596	29·8	17·1	2·1	0·9	2·8	147
Grand Total for the Administrative County	1565501	1451991	21357	20700	42057	13251	12525	25776	26573	6719	3460	1178	1147	7405	5867	28·9	18·3	2·2	1·1	3·2	160
Column	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

Denholme	2540	2941	34	34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dewsbury Borough	1468	28181	334	321	655	332	310	642	642	151	57	20	23	248	143	23·2	19·7	1·8	1·3	4·4	231
Dodworth	1916	3028	61	45	106	33	18	51	51	13	15	1	2	8	12	35·0	16·8	3·3	0·3	3·0	123
Doncaster Borough	1691	28688	404	433	837	323	273	596	651	205	61	22	21	149	138	29·2	20·8	3·5	1·5	3·5	245
Drighlington	1136	4225	63	49	112	31	31	62	62	20	9	3	3	14	13	26·5	14·7	1·2	0·9	2·4	179
Elland	1992	10380	95	108	203	83	81	164	155	30	10	3	15	61	45	19·6	15·8	1·2	1·8	2·4	148
Emley	3556	1427	14	15	29	15	8	23	23	1	2	1	4	6	9	20·3	16·1	0·7	1·4	2·8	35
Farnley Tyas	1785	492	4	3	7	2	1	3	3	–	–	–	–	–	3	14·2	6·1	*nil*	*nil*	*nil*	*nil*
Farsley	814	5560	61	61	122	37	48	85	83	16	5	2	5	32	25	21·9	15·3	0·2	0·7	3·1	131
Featherstone	4429	11671	236	213	449	133	95	228	226	101	38	8	11	47	23	38·5	19·5	2·9	0·9	4·4	225
Flockton	1108	1248	20	19	39	17	6	23	23	9	3	1	–	3	7	31·3	18·4	3·2	0·8	3·2	231
Gildersome	993	3080	42	42	84	16	25	41	41	7	2	2	3	12	15	27·3	13·3	1·3	0·3	1·0	83
Golcar	1593	9248	128	113	241	88	65	153	153	40	17	8	16	35	37	26·0	16·5	1·2	1·7	1·9	166
Gomersal	1096	3605	33	43	76	30	40	70	70	8	10	8	6	17	21	21·1	19·4	1·7	*nil*	5·0	105
Goole	1441	16486	306	274	580	156	133	289	299	76	44	16	13	78	62	35·2	17·5	2·3	0·9	3·1	131
Greasborough	2412	3137	66	39	105	22	24	46	46	14	4	1	3	9	15	33·5	14·7	2·6	1·3	1·9	133
Greetland	641	4457	42	33	75	33	41	74	72	8	9	2	–	26	29	16·8	16·6	0·7	0·7	2·7	107
Guiseley	1554	4520	59	65	124	40	31	71	71	8	14	3	4	26	16	27·4	15·7	1·8	1·5	3·3	65
Gunthwaite	2057	335	5	2	7	5	1	6	6	2	–	1	1	1	1	20·9	17·9	*nil*	*nil*	3·0	286
Handsworth	3638	13820	289	247	536	122	115	237	236	91	38	12	6	56	34	38·8	17·1	2·9	0·8	1·9	170
Harrogate Borough	1268	25354	198	185	383	159	149	308	342	58	25	20	19	95	91	15·1	12·1	1·4	0·7	2·4	151
Haworth	2234	7458	66	81	147	57	73	130	128	22	21	6	11	35	35	19·7	17·4	2·1	1·7	2·8	150
Hebden Bridge	478	7441	82	63	145	49	63	112	112	16	12	–	7	36	41	19·5	15·1	0·9	0·7	3·0	110
Heckmondwike	697	9478	106	97	203	90	93	183	167	38	25	4	5	73	38	21·4	19·3	0·8	1·9	3·5	187
Hipperholme	1138	4169	38	45	83	20	28	48	48	8	3	1	4	21	11	19·9	11·5	0·2	0·5	2·9	96
Holme	3390	417	5	2	7	4	1	5	5	–	–	1	–	2	2	16·8	12·0	*nil*	*nil*	9·6	*nil*
Holmfirth	7770	9031	100	104	204	66	75	141	141	20	10	3	9	49	50	22·6	15·6	1·3	1·4	2·9	98
Honley	2175	4921	49	44	93	32	34	66	104	8	4	3	4	32	15	18·9	13·4	0·8	1·2	1·6	86
Horbury	1279	6650	95	96	191	48	50	98	95	31	11	3	5	31	17	28·7	14·7	1·1	1·2	2·9	162
Horsforth	2801	7732	91	104	195	57	47	104	103	26	9	3	5	46	15	25·2	13·4	1·0	1·0	3·0	133
Hoyland Nether	2085	12348	240	274	514	138	127	265	252	91	65	7	14	50	38	41·6	21·5	5·9	1.0	3·2	177
Hoylandswaine	2024	598	7	5	12	2	5	7	7	–	–	–	1	6	–	20·1	11·7	1·7	*nil*	1·7	*nil*
Hunsworth	1380	1350	10	9	19	14	12	26	26	–	2	2	4	11	7	14·1	19·2	2·2	3·0	4·4	*nil*
Ilkley	3822	7315	81	82	163	34	36	70	80	13	2	4	2	27	22	22·3	9·6	0·7	0·5	1·0	80
Keighley Borough	3670	41034	542	524	1066	461	414	875	869	176	148	59	45	293	154	26·0	21·3	3·5	2·1	4·4	165
Kirkburton	1286	2989	39	33	72	40	25	65	60	14	3	5	3	20	20	24·1	21·7	3·0	0·7	5·0	194
Kirkheaton	1674	2502	28	26	54	21	26	47	47	4	5	3	–	16	19	21·6	18·8	2·8	0·8	3·6	74
Knaresborough	470	4954	90	87	177	66	67	133	133	36	8	6	2	34	47	35·7	26·8	3·4	1·8	2·4	203
Knottingley	1481	5779	116	109	225	58	61	119	107	39	16	7	3	20	34	38·9	20·6	3·1	1·4	3·3	173

No. II. Causes of Death, 1900.

SANITARY DISTRICT.	DEATHS FROM SUBJOINED CAUSES.																														
							FEVERS																								
	Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria and Membranous Croup	Croup	Typhus	Enteric	Other Continued	Epidemic Influenza	Cholera	Plague	Diarrhœa	Enteritis	Puerperal Fever	Erysipelas	Other Septic Diseases	Phthisis	Other Tubercular Diseases	Cancer—Malignant Disease	Bronchitis	Pneumonia	Pleurisy	Other Diseases of Respiratory Organs	Alcoholism—Cirrhosis of Liver	Venereal Diseases	Premature Birth	Diseases and Accidents of Parturition	Heart Disease	Accidents	Suicides	All other cause
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
I. URBAN.																															
Altofts	-	10	-	-	-	-	-	2	-	-	-	-	2	11	2	1	-	1	2	-	6	2	-	1	-	-	2	-	7	3	-	18
Ardsley	-	4	4	4	1	-	-	1	-	-	-	-	2	5	-	-	-	3	7	3	8	9	2	-	-	1	8	-	9	4	1	27
Ardsley East and West	-	7	1	1	1	-	-	2	-	2	-	-	4	-	-	-	1	7	5	2	11	14	-	1	2	-	5	-	17	1	-	53
Baildon	-	-	-	-	-	-	-	3	-	-	-	-	1	1	-	-	1	7	5	3	4	9	-	1	1	-	2	-	9	1	-	27
Balby-cum-Hexthorpe	-	-	-	2	1	-	-	1	-	2	-	-	7	1	1	-	-	4	3	5	9	7	-	-	-	1	10	-	10	4	-	53
Barkisland	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1	-	4	1	-	-	-	-	-	-	4	-	2	6
Barnoldswick	-	-	1	4	-	3	-	-	-	8	-	-	3	3	-	-	-	4	2	2	17	10	1	1	-	-	4	-	6	-	-	29
Barnsley Borough	-	37	11	26	19	1	-	4	-	15	-	-	58	16	2	3	5	53	24	31	90	34	2	46	4	4	48	4	65	42	5	219
Batley Borough	-	52	-	8	9	-	-	11	-	20	-	-	20	13	1	2	-	50	14	22	66	33	3	-	4	2	14	4	43	5	4	212
Bingley	-	8	11	-	4	-	-	1	-	13	-	-	8	-	2	-	-	18	7	10	41	28	1	13	4	-	16	-	16	6	-	140
Birkenshaw	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	4	3	2	4	5	-	-	1	-	2	1	3	3	-	10
Birstal	-	12	-	1	-	1	-	-	-	1	-	-	6	-	-	-	-	10	14	4	11	9	-	5	-	-	3	2	6	1	1	47
Bolton-on-Dearne	-	-	-	1	-	-	-	1	-	3	-	-	3	-	-	2	-	5	3	1	9	2	-	-	1	-	4	-	8	2	-	16
Brighouse Borough	-	10	7	13	6	1	-	2	-	6	-	-	2	11	2	-	1	39	7	15	47	51	1	2	3	-	11	2	26	12	-	122
Burley-in-Wharfedale	-	-	1	-	5	-	-	-	-	-	-	-	-	1	1	-	-	3	-	6	-	1	1	-	1	-	3	-	6	1	-	23
Calverley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	6	-	2	-	-	-	-	-	4	-	-	5	2	32
Castleford	-	8	-	-	3	-	-	2	-	2	-	-	27	26	-	-	-	23	8	6	19	36	1	2	5	2	9	3	17	3	1	111
Clayton	-	2	-	-	1	-	-	-	-	5	-	-	-	1	-	-	-	7	1	6	7	3	-	2	1	-	-	-	5	1	2	22
Clayton West	-	-	-	-	-	-	-	-	-	5	-	-	-	-	1	-	-	2	-	-	2	2	-	-	-	-	-	-	2	1	-	12
Cleckheaton	-	4	2	-	-	-	-	3	-	3	-	-	3	-	-	-	-	23	-	11	18	14	-	-	-	-	-	-	14	1	-	91
Cudworth	-	3	2	5	1	-	-	-	-	2	-	-	-	6	-	-	-	-	1	2	11	4	-	-	-	-	3	2	3	4	-	15
Darfield	-	-	-	-	-	1	-	-	-	-	-	-	2	7	-	-	-	7	1	-	3	3	-	-	-	-	3	-	2	2	-	22
Darton	-	3	3	-	1	2	-	3	-	-	-	-	8	1	-	-	-	4	-	4	13	13	-	1	1	-	11	-	14	2	2	45
Denby-&-Cumb'rworth	-	2	-	2	-	-	-	-	-	4	-	-	1	1	-	-	-	1	1	3	4	1	-	-	-	-	1	2	7	2	-	13
Denholme	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	2	2	10	2	-	-	-	-	4	-	4	2	1	25
Dewsbury Borough	-	17	1	2	3	4	-	6	1	13	-	-	21	5	3	1	-	38	19	20	74	48	2	-	4	3	15	3	50	26	1	262
Dodworth	-	7	-	2	-	-	-	1	-	7	-	-	-	-	-	-	-	1	1	1	5	4	-	-	-	-	5	1	4	-	-	12
Doncaster Borough	-	1	1	20	4	-	-	3	-	11	1	-	71	6	-	1	-	44	10	23	61	40	-	9	2	5	23	-	58	11	1	190
Drighlington	-	1	-	2	1	-	-	1	-	-	-	-	-	1	1	-	-	4	4	3	5	5	-	-	-	-	3	-	9	3	-	19
Elland	-	2	1	-	3	-	-	5	-	4	-	-	1	5	-	-	-	19	5	6	17	8	-	3	-	-	6	1	13	3	4	58
Emley	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	2	1	2	2	2	-	-	-	-	-	-	3	2	-	6
Farnley Tyas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Farsley	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	4	-	6	13	4	-	2	-	-	3	-	7	-	-	44
Featherstone	-	13	2	9	-	2	-	4	-	1	-	-	6	20	1	-	2	11	39	2	21	30	-	-	1	-	9	1	17	5	-	32
Flockton	-	-	-	3	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	1	2	2	-	-	-	-	1	1	1	1	-	9
Gildersome	-	-	-	-	-	-	-	2	-	3	-	-	2	-	-	2	-	1	2	1	2	1	-	-	-	1	2	1	4	1	-	16
Golcar	-	1	5	-	-	2	-	5	-	1	-	-	-	-	-	1	-	16	-	5	11	7	-	-	-	-	5	-	15	2	-	77
Gomersal	-	2	-	2	-	-	-	2	-	2	-	-	-	-	-	-	-	-	4	4	14	3	1	-	2	-	1	-	11	1	-	21
Goole	-	3	3	8	11	-	-	2	-	3	-	-	11	10	1	-	-	15	8	16	25	26	-	-	-	-	14	-	17	14	4	98
Greasborough	-	1	2	1	1	-	-	-	-	1	-	-	3	-	-	-	-	4	-	3	6	-	-	-	-	-	2	-	6	-	-	16
Greetland	-	2	1	-	-	-	-	-	-	2	-	-	-	1	-	-	-	3	3	12	6	6	-	-	2	-	1	-	11	-	-	24
Guiseley	-	7	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	7	1	4	6	9	-	-	2	-	4	1	6	1	-	21
Gunthwaite	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1	-	-	2
Handsworth	-	5	6	-	7	-	-	-	-	3	-	-	22	2	2	-	-	11	11	11	19	6	1	1	3	1	9	2	14	4	3	94
Harrogate Borough	-	4	-	-	18	-	-	3	2	7	-	-	9	-	-	-	-	17	6	13	30	30	-	-	6	-	8	1	37	9	4	104
Haworth	-	6	2	-	5	-	-	2	-	4	-	-	1	-	-	1	-	13	4	2	9	12	-	-	3	-	3	-	18	2	-	43
Hebden Bridge	-	-	1	4	1	-	-	1	-	6	-	-	-	2	-	-	-	5	3	4	9	12	1	1	-	-	3	-	6	2	-	51
Heckmondwike	-	3	1	2	-	-	-	2	-	5	-	-	-	2	-	-	-	18	7	11	28	5	-	-	2	-	5	-	13	5	-	74
Hipperholme	-	-	-	1	-	-	-	-	-	1	-	-	-	2	-	-	-	2	-	6	7	4	1	1	-	-	2	2	3	-	1	15
Holme	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	1
Holmfirth	-	2	1	-	4	-	-	1	-	4	-	-	4	1	2	1	1	13	4	8	21	5	-	1	3	-	5	-	12	2	1	45
Honley	-	-	-	3	-	-	-	-	-	-	-	-	1	-	-	-	-	6	4	6	5	3	-	-	2	-	1	1	10	-	-	24
Horbury	-	-	-	-	2	-	-	1	-	3	-	-	4	2	1	-	-	8	3	3	11	8	-	-	1	-	-	2	4	3	-	42
Horsforth	-	-	2	1	1	-	-	1	-	3	-	-	3	1	-	-	2	8	5	6	10	12	1	-	3	-	7	-	8	3	1	26
Hoyland Nether	-	31	4	7	5	-	-	1	-	1	-	-	25	11	-	1	-	12	7	5	33	7	-	-	1	-	7	3	16	8	-	80
Hoylandswaine	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	1	-	-	1	-	-	-	-	-	-	2
Hunsworth	-	-	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	4	-	-	5	1	-	1	-	-	-	-	2	1	-	9
Ilkley	-	1	1	2	1	-	-	-	-	3	-	-	-	-	-	-	1	4	-	7	6	1	-	2	-	-	8	-	8	3	2	20
Keighley Borough	-	42	27	1	48	-	-	10	-	7	-	-	15	-	1	3	-	85	36	37	100	77	4	-	5	-	18	4	64	12	3	276
Kirkburton	-	1	-	4	-	-	-	2	-	-	-	-	2	-	1	-	-	2	1	5	6	9	-	1	-	-	1	-	6	1	-	23
Kirkheaton	-	1	-	3	1	-	-	2	-	3	-	-	-	-	-	-	-	2	1	4	7	2	-	-	-	-	1	1	8	2	-	9
Knaresborough	-	1	-	-	6	-	-	-	-	8	-	-	10	-	-	1	-	9	1	6	8	4	-	3	2	-	8	-	15	1	1	49
Knottingley	-	5	-	1	-	-	-	3	-	1	-	-	9	-	-	-	-	8	4	3	15	4	-	-	1	1	5	-	6	2	1	50
Lepton	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	6	2	-	3	2	-	-	-	-	1	1	6	3	-	21
Linthwaite	-	-	3	-	-	-	-	-	-	1	-	-	-	-	-	1	-	4	-	4	10	7	-	-	-	-	4	-	12	3	-	61
Liversedge	-	1	3	-	-	-	-	3	-	6	-	-	7	-	-	2	-	18	10	11	20	21	-	-	4	-	12	1	26	5	5	108
Luddendenfoot	-	5	-	-	-	-	-	1	-	2	-	-	-	1	-	-	-	8	-	3	5	2	-	-	-	-	1	-	10	1	-	21
Marsden	-	1	1	-	1	1	-	-	-	3	-	-	-	-	-	-	-	1	-	1	5	3	-	-	-	-	1	-	8	2	-	22
Meltham	-	-	-	-	2	-	-	-	-	-	-	-	3	-	-	-	-	14	2	8	5	5	-	-	2	-	4	-	13	1	-	33
Methley	-	1	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	4	5	-	15	4	-	-	2	-	3	-	5	2	3	31
Mexborough	-	10	7	-	-	-	-	1	-	5	-	-	13	5	-	-	-	8	-	2	15	23	-	-	-	-	11	2	11	8	-	52
Midgley	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	2	-	2	9	-	-	-	-	4	1	6	-	-	12
Mirfield	-	4	2	2	2	1	-	2	-	8	-	-	3	3	1	2	-	10	3	12	21	21	2	-	2	-	10	1	16	7	-	56
Monk Bretton	-	1	1	4	1	1	-	-	-	-	-	-	4	-	-	-	1	1	1	1	14	4	1	-	-	-	5	-	2	1	-	34
Morley	-	19	5	5	8	-	-	9	-	7	-	-	13	9	-	2	-	33	23	16	27	51	1	-	3	-	12	4	22	12	1	127
Mytholmroyd	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4	6	4	-	1	-	-	1	-	5	1	-	22
Netherthong	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	1	1	-	-	-	-	2	-	-	-	-	2
New Mill	-	-	-	2	-	-	-	1	-	3	-	-	-	-	-	-	-	7	3	9	4	7	-	-	2	-	2	1	8	-	-	29
Normanton	-	18	1	1	-	-	-	3	-	1	-	-	22	22	1	1	-	9	9	1	48	10	-	-	2	-	14	-	10	6	1	37
Northowram	-	2	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	5	1	4	10	-	-	-	-	-	2	1	5	1	-	32
Oakworth	-	8	-	-	-	-	-	1	-	3	-	-	-	-	-	-	-	8	5	6	9	9	1	-	-	-	2	-	10	2	-	24
Ossett Borough	-	2	-	6	3	1	-	1	-	4	-	-	7	3	-	-	-	17	9	9	27	14	1	-	-	-	5	-	17	4	-	93
Otley	-	1	1	-	1	-	-	3	-	3	-	-	2	-	-	-	1	18	11	7	12	16	-	1	1	-	5	2	11	2	-	59
Oxenhope	-	1	-	-	1	-	-	1	-	-	-	-	1	1	-	-	1	1	3	-	13	9	-	-	1	-	1	-	3	-	-	12
Penistone	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	2	2	2	1	2	-	3	-	-	2	2	3	1	-	10
Pontefract Borough	-	17	1	2	-	-	-	10	-	1	-	-	14	5	-	2	-	18	12	10	20	14	1	12	-	1	8	3	16	7	-	95
Pudsey Borough	-	-	2	1	3	1	-	5	1	4	-	-	8	-	-	1	2	13	8	16	27	17	-	-	1	-	8	2	16	3	2	79
Queensbury	-	5	-	-	-	-	-	2	-	5	-	-	-	-	1	-	-	7	2	7	14	5	1	-	-	-	4	-	13	-	-	33
Ravensthorpe	-	3	-	2	-	2	-	1	-	-	-	-	4	3	-	-	-	4	2	3	28	5	-	-	3	-	5	-	5	2	-	31
Rawdon	-	1	-	1	-	-	-	-	-	3	-	-	-	2	-	1	-	-	-	1	4	1	-	1	-	-	4	1	5	-	-	15
Rawmarsh	-	1	7	9	-	-	-	1	-	3	-	-	34	3	1	1	2	16	15	6	19	24	-	1	1	-	14	1	16	13	-	72
Ripon City	-	4	-	-	4	-	-	1	-	9	-	-	-	-	-	-	-	13	13	4	9	4	-	-	2	-	1	2	14	3	-	57
Rishworth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	1	-	-	-	-	-	-	-	4	1	-	8
Rotherham Borough	-	35	23	22	12	-	-	8	-	14	-	-	49	49	-	2	-	55	4	33	78	120	2	6	13	7	39	4	60	11	4	328
Rothwell	-	6	2	-	11	1	-	-	-	2	-	-	10	7	-	-	-	9	18	6	26	15	-	2	2	-	7	-	13	7	1	63
Royston	-	4	-	7	1	-	-	-	-	1	-	-	3	-	-	-	2	1	2	2	20	13	-	-	1	-	7	-	8	2	-	25
Saddleworth	-	6	-	-	1	-	-	3	-	4	-	-	-	5	1	-	1	13	5	12	13	9	1	1	6	-	2	2	32	10	2	66
Sandal Magna	-	4	5	2	-	-	-	4	-	-	-	-	13	-	1	-	-	4	7	4	21	9	-	-	1	-	8	2	4	4	2	23
Scammonden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Selby	-	10	-	1	6	-	-	2	-	13	-	-	5	-	-	1	-	13	3	4	10	11	-	1	1	-	6	-	12	4	-	50
Shelf	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	3	1	3	3	3	-	1	-	1	-	1	5	1	-	16
Shelley	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	3	-	1	2	2	-	-	-	-	-	-	3	1	1	6
Shepley	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3	2	2	-	1	-	-	-	-	1	-	2	1	1	8
Shipley	-	6	3	8	4	1	-	1	-	6	-	-	6	4	1	1	1	40	8	21	62	34	2	1	1	1	12	4	45	7	-	154
Silsden	-	7	-	-	-	-	-	2	-	2	-	-	1	2	-	-	-	5	3	8	8	9	-	-	1	-	1	-	4	-	-	24
Skelmanthorpe	-	3	-	1	-	-	-	1	-	1	-	-	1	-	-	-	-	3	1	5	16	2	-	-	-	-	2	1	3	-	-	18
Skipton	-	11	6	6	-	-	-	5	-	4	-	-	1	6	-	1	2	22	4	12	25	11	-	-	3	-	3	-	13	6	-	65
Slaithwaite	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	11	-	1	7	5	-	-	-	-	1	2	3	1	-	29
Soothill Nether	-	1	-	1	3	1	-	4	-	2	-	-	-	-	1	-	-	10	1	6	9	7	-	-	1	-	5	1	4	2	3	40
Soothill Upper	-	7	-	-	-	1	-	1	-	4	-	-	3	-	1	-	-	5	-	2	17	3	-	-	-	-	1	-	9	8	-	33
South Crosland	-	-	1	-	-	1	-	1	-	1	-	-	1	-	-	-	1	2	-	4	11	2	-	-	2	-	2	-	2	-	1	16
Southowram	-	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	4	3	2	7	-	1	-	-	-	1	1	2	1	1	12
Sowerby	-	-	-	-	1	-	-	-	-	2	-	-	-	2	-	-	-	3	2	2	11	4	-	1	-	-	-	1	9	1	1	27
Sowerby Bridge	-	10	4	2	1	-	-	1	-	-	-	-	2	5	1	-	-	10	2	4	28	15	-	2	1	-	-	-	10	4	1	77
Soyland	-	2	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	2	5	7	6	2	-	3	-	-	-	-	8	-	-	14
Springhead	-	-	2	-	-	1	-	-	-	1	-	-	-	-	-	-	1	14	-	3	3	7	-	-	-	-	-	-	18	2	2	13
Stainland	-	-	1	-	-	2	-	2	-	2	-	-	-	-	2	-	-	3	1	4	14	3	-	-	-	-	3	-	6	2	1	33
Stanley	-	9	4	2	-	-	-	2	-	5	-	-	11	9	-	-	-	11	10	5	27	9	-	-	2	-	16	2	10	12	2	63
Stocksbridge	-	7	3	-	10	-	-	-	-	1	-	-	13	-	-	1	-	13	2	2	14	18	-	1	-	-	4	-	6	3	-	44
Swinton	-	19	6	4	8	-	-	1	-	4	-	-	7	13	1	1	-	7	2	4	17	13	-	8	2	3	8	3	10	9	1	85
Thornhill	-	1	-	4	1	1	-	1	-	4	-	-	-	3	1	-	-	4	7	8	21	7	-	4	-	1	7	4	13	2	1	43
Thurlstone	-	-	1	3	-	-	-	-	-	1	-	-	-	-	-	-	-	6	4	-	5	7	-	-	-	-	2	1	4	-	-	17
Thurstonland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	2	-	-	-	-	-	-	2	-	-	5
Tickhill	-	-	-	-	1	-	-	-	-	2	-	-	1	-	-	-	1	2	1	-	4	5	-	-	-	-	1	-	1	-	-	13
Todmorden Borough	-	10	11	5	4	1	-	11	-	17	-	-	4	9	-	2	-	23	12	24	52	26	3	-	5	2	12	3	39	4	5	141
Wakefield City	-	26	23	11	20	-	-	17	-	13	-	-	46	18	-	1	-	54	41	30	113	79	2	-	6	-	29	3	54	25	8	260
Warley	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	3	-	-	4	2	-	1	-	-	-	-	4	1	-	24
Wath-on-Dearne	-	7	-	-	3	-	-	3	-	5	-	-	17	-	-	1	-	7	2	2	25	1	-	-	3	-	5	-	6	6	-	35
Wheatley	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-	-	1	-	-	5	2	-	-	-	-	2	-	7	-	-	26
Whitley Upper	-	-	-	-	1	-	-	-	-	1	-	-	-	1	-	-	-	2	-	1	-	3	-	-	-	-	2	1	2	-	-	6
Whitwood	-	11	-	-	2	-	-	-	-	-	-	-	8	6	-	-	-	11	2	2	19	18	-	-	-	-	5	-	5	5	1	32
Wombwell	-	1	3	1	6	-	-	4	-	2	-	-	18	11	1	1	1	9	13	5	25	24	-	2	2	-	9	1	13	5	-	72
Worsborough	-	3	-	5	3	-	-	4	-	1	-	-	23	4	-	-	-	7	7	8	21	14	-	8	1	-	10	2	6	6	-	48
Yeadon	-	11	-	2	-	-	-	-	-	4	-	-	1	-	-	-	-	8	5	9	10	9	-	-	-	-	2	2	10	1	-	38
Total of Urban Districts	-	648	237	268	307	34	-	227	4	400	1	-	764	395	42	45	32	1342	639	784	2170	1515	42	161	154	37	715	112	1551	486	99	6714
II. RURAL.																															
Barnsley	-	1	-	1	-	2	-	1	-	2	-	-	4	1	-	-	-	2	1	2	11	2	-	3	-	-	4	-	3	1	-	27
Bishopthorpe	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	2	1	1	-	-	1	-	1	1	5	1	-	7
Bowland	-	-	-	1	-	1	-	2	-	-	-	-	2	-	-	-	-	4	-	3	-	8	5	-	2	-	-	-	10	3	-	40
Doncaster	-	32	-	6	4	-	-	4	-	12	-	-	43	2	1	-	-	26	6	10	63	45	-	-	-	-	24	-	44	8	4	178
Goole	-	1	-	5	2	-	-	-	-	5	-	-	1	-	-	-	-	6	1	12	20	8	-	-	1	-	5	-	22	5	-	77
Great Ouseburn	-	1	1	8	1	1	-	-	-	11	-	-	3	3	2	-	3	7	7	8	15	3	-	4	-	-	8	2	17	1	1	61
Halifax	-	5	2	-	-	-	-	-	-	9	-	-	1	1	-	-	1	8	3	5	2	6	1	-	-	-	5	-	8	1	3	48
Hemsworth	-	12	7	6	3	1	-	9	-	7	-	-	26	25	2	-	1	11	15	11	61	16	1	-	3	-	30	3	21	9	-	106
Hunslet	-	3	-	1	12	1	-	1	-	3	-	-	5	1	1	-	-	4	3	3	8	8	-	1	-	1	4	-	8	5	-	33
Keighley	-	3	3	-	1	1	-	-	-	8	-	-	1	2	-	-	-	8	2	2	12	3	-	1	1	-	2	-	13	-	-	27
Kiveton Park	-	-	5	3	1	1	-	-	-	7	-	-	5	4	-	-	-	6	-	5	6	5	-	-	1	1	2	1	5	3	1	30
Knaresborough	-	2	1	2	19	-	-	1	-	6	-	-	6	1	-	1	4	15	3	9	13	14	2	-	4	1	8	2	17	11	2	72
Leeds	-	-	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	2	3	2	7	1	-	-	-	-	-	2	6	3	2	9
Pateley Bridge	-	-	-	-	3	-	-	1	-	-	-	-	-	-	-	1	-	12	1	6	15	10	5	-	-	-	8	1	24	3	-	53
Penistone	-	1	3	-	1	-	-	1	-	6	-	-	1	-	-	-	-	8	5	3	15	1	-	1	1	-	7	-	12	3	-	23
Pontefract	-	11	-	2	2	-	-	3	-	5	-	-	8	8	-	-	-	17	2	6	21	9	-	10	1	-	13	4	12	11	-	91
Ripon	-	1	-	3	-	-	-	-	-	6	-	-	1	-	-	-	2	3	4	5	5	6	1	2	1	-	2	1	11	1	2	30
Rotherham	-	8	10	3	9	-	-	4	-	4	-	-	8	5	1	2	-	9	10	11	49	10	6	-	4	-	16	3	10	18	1	109
Sedbergh	-	-	-	-	-	1	-	-	-	3	-	-	-	2	-	-	-	5	2	4	4	2	-	-	1	-	2	1	4		-	25
Selby	-	-	1	-	1	-	-	1	-	4	-	-	2	-	-	1	-	12	1	1	9	9	-	-	1	-	2	-	12	5	2	58
Settle	-	-	-	2	1	2	-	-	-	13	-	-	2	4	-	2	-	6	3	9	12	15	-	1	5	1	2	1	32	2	1	75
Skipton	-	7	8	1	6	1	-	2	-	14	-	-	5	9	1	2	3	24	14	15	31	19	2	2	-	1	9	2	46	9	1	114
Tadcaster	-	25	1	2	3	-	-	9	-	18	-	-	23	6	-	1	-	29	6	18	49	38	-	-	-	-	14	-	25	19	4	235
Thorne	-	2	1	2	-	-	-	-	-	-	-	-	3	4	-	-	1	5	2	3	10	2	1	11	-	-	2	1	16	1	1	48
Todmorden	-	-	1	1	-	-	-	1	-	8	-	-	3	1	-	-	-	5	3	5	9	4	-	1	1	-	3	-	12	3	-	34
Wakefield	-	13	3	2	-	1	-	3	-	9	-	-	9	8	-	-	-	17	14	5	35	30	-	1	3	-	16	2	30	11	-	85
Wetherby	-	1	-	1	5	-	-	5	-	14	-	-	3	6	-	-	2	16	12	9	28	16	2	4	1	-	8	1	31	9	3	100
Wharfedale N. Div.	-	-	-	1	1	-	-	-	-	4	-	-	-	-	1	-	-	5	-	6	2	1	1	-	-	-	3	-	8	2	1	17
Do. S. Div.	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	1	3	3	5	4	-	-	1	-	1	-	3	1	-	19
Wortley	-	14	13	18	86	6	-	5	-	11	-	-	43	21	2	2	6	35	23	21	59	66	3	2	3	-	16	4	68	8	-	263
Total of Rural Districts	-	143	61	72	161	19	-	54	-	194	-	-	209	114	11	12	23	308	149	204	585	359	25	44	36	5	217	32	535	157	29	2094
Administrative County	-	791	298	340	468	53	-	281	4	594	1	-	973	509	53	57	55	1650	788	988	2755	1874	67	205	190	42	932	144	2086	643	128	8808
Column	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

sbury Borough	-	17	1	2	3	4		6	1	13																					
worth	-	7	-	2	-	-	-	1	-	7	-	-	-	-	-	-	-	1	1	1	5	4	-	-	-	-	3	1	4			
caster Borough	-	1	1	20	4	-	-	3	-	11	1	-	71	6	-	1	-	44	10	23	61	40	-	9	2	5	23	-	58	11	1	190
ghlington	-	1	-	2	1	-	-	1	-	-	-	-	-	1	1	-	-	4	4	3	5	5	-	-	-	-	3	-	9	3	-	19
nd	-	2	1	-	3	-	-	5	-	4	-	-	1	5	-	-	-	19	5	6	17	8	-	3	-	-	6	1	13	3	4	58
ey	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	2	1	2	2	2	-	-	-	-	-	-	3	2	-	6
nley Tyas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1
sley	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	4	-	6	13	4	-	2	-	-	3	-	7	-	-	44
therstone	-	13	2	9	-	2	-	4	-	1	-	-	6	20	1	-	2	11	39	2	21	30	-	-	1	-	9	1	17	5	-	32
ckton	-	-	-	3	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	1	2	2	-	-	-	-	1	1	1	1	-	9
lersome	-	-	-	-	-	-	-	2	-	3	-	-	2	-	-	2	-	1	2	1	2	1	-	-	-	1	2	1	4	1	-	16
car	-	1	5	-	-	2	-	5	-	1	-	-	-	-	-	1	-	16	-	5	11	7	-	-	-	-	5	-	15	2	-	77
nersal	-	2	-	2	-	-	-	2	-	2	-	-	-	-	-	-	-	-	4	4	14	3	1	-	2	-	1	-	11	1	-	21
le	-	3	3	8	11	-	-	2	-	3	-	-	11	10	1	-	-	15	8	16	25	26	-	-	-	-	14	-	17	14	4	98
asborough	-	1	2	1	1	-	-	-	-	1	-	-	3	-	-	-	-	4	-	3	6	-	-	-	-	-	2	-	6	-	-	16
etland	-	2	1	-	-	-	-	-	-	2	-	-	-	1	-	-	-	3	3	12	6	6	-	-	2	-	1	-	11	-	-	24
seley	-	7	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	7	1	4	6	9	-	-	2	-	4	1	6	1	-	21
nthwaite	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1	-	-	2
ndsworth	-	5	6	-	7	-	-	-	-	3	-	-	22	2	2	-	-	11	11	11	19	6	1	1	3	1	9	2	14	4	3	94
rrogate Borough	-	4	-	-	18	-	-	3	2	7	-	-	9	-	-	-	-	17	6	13	30	30	-	-	6	-	8	1	37	9	4	104
worth	-	6	2	-	5	-	-	2	-	4	-	-	1	-	-	1	-	13	4	2	9	12	-	-	3	-	3	-	18	2	-	43
bden Bridge	-	-	1	4	1	-	-	1	-	6	-	-	-	2	-	-	-	5	3	4	9	12	1	1	-	-	3	-	6	2	-	51
ckmondwike	-	3	1	2	-	-	-	2	-	5	-	-	-	2	-	-	-	18	7	11	28	5	-	-	2	-	5	-	13	5	-	74
pperholme	-	-	-	1	-	-	-	-	-	1	-	-	-	2	-	-	-	2	-	6	7	4	1	1	-	-	2	2	3	-	1	15
lme	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	1
lmfirth	-	2	1	-	4	-	-	1	-	4	-	-	4	1	2	1	1	13	4	8	21	5	-	1	3	-	5	-	12	2	1	45
nley	-	-	-	3	-	-	-	-	-	-	-	-	1	-	-	-	-	6	4	6	5	3	-	-	2	-	1	1	10	-	-	24
rbury	-	-	-	-	2	-	-	1	-	3	-	-	4	2	1	-	-	8	3	3	11	8	-	-	1	-	-	2	4	3	-	42
rsforth	-	-	2	1	1	-	-	1	-	3	-	-	3	1	-	-	2	8	5	6	10	12	1	-	3	-	7	-	8	3	1	26
yland Nether	-	31	4	7	5	-	-	1	-	1	-	-	25	11	-	1	-	12	7	5	33	7	-	-	1	-	7	3	16	8	-	80
ylandswaine	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	1	-	-	1	-	-	-	-	-	-	2
nsworth	-	-	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	4	-	-	5	1	-	1	-	-	-	-	2	1	-	9
ley	-	1	1	2	1	-	-	-	-	3	-	-	-	-	-	-	1	4	-	7	6	1	-	2	-	-	8	-	8	3	2	20
ighley Borough	-	42	27	1	48	-	-	10	-	7	-	-	15	-	1	3	-	85	36	37	100	77	4	-	5	-	18	4	64	12	3	276
rkburton	-	1	-	4	-	-	-	2	-	-	-	-	2	-	1	-	-	2	1	5	6	9	-	1	-	-	1	-	6	1	-	23
rkheaton	-	1	-	3	1	-	-	2	-	3	-	-	-	-	-	-	-	2	1	4	7	2	-	-	-	-	1	1	8	2	-	9
aresborough	-	1	-	-	6	-	-	-	-	8	-	-	10	-	-	1	-	9	1	6	8	4	-	3	2	-	8	-	15	1	1	49
ottingley	-	5	-	1	-	-	-	3	-	1	-	-	9	-	-	-	-	8	4	3	15	4	-	-	1	1	5	-	6	2	1	50
pton	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	6	2	-	3	2	-	-	-	-	1	1	6	3	-	21
															-	1	-	4	-	4	10	7	-	-	-	-	4	-	12	3	-	61
																													26	5	5	108

No. III. Notified Cases of Infectious Disease, 1900.

SANITARY DISTRICT.	CASES NOTIFIED OR OTHERWISE ASCERTAINED.														CASES REMOVED TO HOSPITAL					MEDICAL OFFICER OF HEALTH. (*Those whose names are printed in italics have ceased to hold Office.*)
						FEVERS.														
	Small Pox	Cholera	Diphtheria	Membranous Croup	Erysipelas	Scarlet	Typhus	Enteric	Relapsing	Continued	Puerperal	Plague	Measles	Whooping Cough	Small Pox	Diphtheria	Scarlet Fever	Enteric Fever	Other	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
I. URBAN.																				
Altofts	–	–	–	–	3	24	–	5	–	–	2	–	131	–	–	–	–	–	–	W. S. Mackenzie, L.R.C.P., L.R.C.S.
Ardsley *m*	–	–	7	–	5	19	–	7	–	–	–	–	E	*	–	–	14	4	–	J. Townsley, M.B., C.M.
Ardsley East & West.	–	–	–	1	3	26	–	6	–	–	–	–	P	*	–	–	19	1	–	B. G. Ewing, M.B., C.M.
Baildon	–	–	–	–	10	13	–	7	–	–	–	–	–	–	–	–	13	3	–	A. Macvie, M.D.
Balby-w-Hexthorpe *x*	–	–	4	1	3	17	–	2	–	–	–	–	–	*	–	2	9	1	–	J. Mitchell Wilson, M.D., D.P.H.
Barkisland	–	–	1	–	–	31	–	1	–	–	–	–	–	–	–	–	3	–	–	J. Hoyle, M.B., C.M.
Barnoldswick	–	–	2	–	6	20	–	1	–	–	–	–	–	*	–	–	–	–	–	H. C. Alderton, L.R.C.P.
Barnsley Borough	–	–	42	5	28	297	–	87	–	–	9	–	*	P	–	–	220	35	–	M. T. Sadler, M.D.
Batley Borough	–	–	22	1	14	38	–	46	–	3	2	–	*	*	–	–	–	–	–	J. A. Erskine Stuart, L.R.C.P.
Bingley	–	–	8	1	31	142	–	9	–	2	2	–	E	P	–	2	102	7	1	G. R. MacGregor, M.D.
Birkenshaw	–	–	1	–	1	5	–	–	–	–	–	–	–	–	–	–	–	–	–	R. Forsyth, M.D.
Birstall	–	–	–	–	13	11	–	7	–	–	–	–	E	*	–	–	–	–	–	R. Forsyth, M.D.
Bolton on-Dearne	–	–	–	–	9	6	–	3	–	–	1	–	–	*	–	–	–	–	–	F. J. Burman, L.R.C.P.
Brighouse Borough	–	–	15	2	16	85	–	16	–	–	4	–	P	P	–	5	78	12	–	F. W. Martin, M.R.C.S.
Burley-in-Wharfedale	–	–	61	–	1	22	–	11	–	–	1	–	P	–	–	–	–	–	–	H. Hebblethwaite, M.R.C.S.
Calverley *x*	–	–	–	–	3	18	–	1	–	–	–	–	–	–	–	–	18	–	–	*E. M. Jenkins, M.B., C.M.*
Castleford	–	–	2	1	1	62	–	8	–	1	1	–	E	–	–	–	56	–	–	G. B. Hillman, L.S.A.
Clayton	–	–	1	1	1	10	–	4	–	–	–	–	E	–	–	–	–	–	–	G. H. Oliver, L.R.C.P
Clayton West	–	–	–	–	3	–	–	1	–	–	1	–	–	–	–	–	–	–	–	D. A. MacGregor, M.B., C.M.
Cleckheaton	–	–	–	–	10	38	–	16	–	–	–	–	*	–	–	–	35	13	–	C. H. Dyer, M.B., C.M.
Cudworth	–	–	–	1	7	25	–	1	–	–	–	–	*	*	–	–	22	1	–	J. L. Elliott, L.S.A.
Darfield	–	–	–	1	1	9	–	1	–	–	–	–	–	–	–	–	–	–	–	R. F. Castle, M.B.
Darton	–	–	11	1	6	83	–	14	–	–	–	–	E	–	–	–	18	6	–	G. H. Pearce, L.R.C.P.
Denby & Cumberworth	–	–	–	–	1	3	–	–	–	–	–	–	E	P	–	–	–	–	–	D. A. MacGregor, M.B., C.M.
Denholme	–	–	3	–	1	16	–	–	–	–	–	–	*	–	–	–	–	–	–	J. Jackson, F R.C.S., L.R.C.P.
Dewsbury Borough *x*	–	–	10	3	13	58	–	12	–	1	3	–	P	*	–	–	2	1	–	W. F. Watts, M.R.C.S.
Dodworth *x*	–	–	–	–	1	8	–	1	–	–	–	–	*	*	–	–	4	–	–	H. Knowles, L.R.C.P.
Doncaster Borough *x*	–	–	29	1	32	70	–	19	–	1	1	–	*	*	–	8	48	16	1	J. Mitchell Wilson, M.D., D P.H.
Drighlington	–	–	2	–	4	1	–	15	–	–	1	–	*	*	–	–	–	–	–	R. Forsyth, M.D.
Elland	–	–	1	4	10	59	–	19	–	–	2	–	E	–	–	–	–	3	–	R. N. Denning, M.D., B.A.
Emley	–	–	–	–	2	1	–	1	–	–	1	–	–	P	–	–	–	–	–	R. H. Townend, M.B.
Farnley Tyas *x m*	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	W. H. Thorman, M.R.C.S.
Farsley	–	–	3	–	2	62	–	5	–	–	–	–	–	–	–	3	48	–	–	J. R. Lambert, M.B.
Featherstone	–	–	20	2	17	90	–	44	–	–	1	–	P	P	–	–	–	–	–	A. Buncle, M.B., C.M.
Flockton	–	–	2	–	6	2	–	–	–	–	–	–	–	*	–	–	–	–	–	J. A. Smith, M.R.C.S.
Gildersome *m*	–	–	–	–	8	4	–	13	–	–	1	–	–	–	–	–	–	–	–	J. B. Brereton, L.R.C.P., L.R.C.S.
Golcar	–	–	4	2	11	70	–	9	–	3	–	–	P	P	–	–	6	–	–	A. G. Webster, M.R.C.S.
Gomersal *m*	–	–	–	–	3	17	–	9	–	–	–	–	E	P	–	–	–	–	–	H. O. Steele, M.R.C.S.
Goole *x*	–	–	28	5	10	100	–	34	–	–	3	–	*	*	–	7	76	22	–	J. Mitchell Wilson, M.D., D.P.H.
Greasborough	–	–	2	–	1	17	–	1	–	–	–	–	P	*	–	–	–	–	–	J.F.Cheesewright,L.R.C.P., M.R.C.S.
Greetland *m*	–	–	–	1	6	16	–	4	–	–	–	–	P	–	–	–	–	–	–	J. Brown, L.R.C.P., L.R.C.S.
Guiseley *m*	–	–	5	–	1	11	–	1	–	–	–	–	P	–	–	–	1	–	–	W. H. Cheetham, M.D., D.P.H.
Gunthwaite	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	D. A. MacGregor, M.B., C.M.
Handsworth	–	–	52	1	22	169	–	4	–	–	3	–	E	–	–	–	–	–	–	A. W. Scott, M.D.
Harrogate Borough *m*	–	–	153	–	4	39	–	11	–	–	–	–	P	–	–	–	22	6	1	W. J. C. Ward, L.R.C.P., M.R.C.S.
Haworth	–	–	12	5	10	21	–	8	–	1	–	–	*	–	–	1	9	3	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Hebden Bridge	–	–	2	–	10	31	–	8	–	–	–	–	P	*	–	–	14	6	–	J. Lawson, M.B., B.A.
Heckmondwike	–	–	2	–	6	26	–	9	–	–	–	–	*	*	–	–	–	–	–	H. T. Broughton, M.R.C.S.
Hipperholme	–	–	–	–	2	13	–	3	–	2	–	–	P	*	–	–	8	–	–	R. Davidson, M.D.
Holme *m*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	R. H. Trotter, M.B.
Holmfirth	–	–	1	3	9	14	–	7	–	–	1	–	E	E	–	–	–	–	–	R. H. Trotter, M.B.
Honley	–	–	–	–	1	1	–	–	–	–	–	–	–	P	–	–	–	–	–	R. H. Trotter, M.B.
Horbury	–	–	1	1	9	22	–	5	–	–	1	–	–	–	–	–	1	–	–	B. Kemp, M.R.C.S.
Horsforth	–	–	22	1	20	71	–	6	–	4	–	–	P	*	–	–	–	–	–	H. Bailey, M.R.C.S.
Hoyland Nether *x*	–	–	6	4	9	131	–	36	–	–	–	–	P	P	–	–	13	21	–	W. L. Allott, M.R.C.S.
Hoylandswaine	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	F. McDonald Swallow, L.R.C.P.
Hunsworth *x*	–	–	6	–	4	2	–	–	–	–	–	–	–	–	–	3	–	–	–	*G. H Moorhead, L.R.C.P.*
Ilkley	–	–	17	–	6	38	–	3	–	–	–	–	32	24	–	8	37	–	2	T. Johnstone, M.D.
Keighley Borough	–	–	216	–	69	311	–	57	–	–	4	–	P	P	–	44	135	31	–	W. Scatterty, M.D.
Kirkburton *m*	–	–	5	–	6	15	–	4	–	1	1	–	P	*	–	1	–	2	–	W. H. Thorman, M.R.C.S.
Kirkheaton *m*	–	–	2	–	1	2	–	5	–	–	–	–	P	*	–	2	–	1	–	W. T. Smith, M.R.C.S.
Knaresborough	–	–	24	–	2	14	–	2	–	–	–	–	*	–	–	–	–	–	–	I. D. Mackay, M.B., C.M.
Knottingley	–	–	–	–	6	12	–	9	–	–	–	–	P	*	–	–	–	–	–	T. Percival, M.R.C.S.
Lepton *m*	–	–	1	–	2	3	–	–	–	–	–	–	P	–	–	–	1	–	–	W. T. Smith, M.R.C.S., L.R.C.P.
Linthwaite	–	–	2	–	–	25	–	4	–	–	–	–	P	P	–	–	5	–	–	A. G Webster, M.R.C.S.
Liversedge	–	–	2	–	16	42	–	16	–	1	–	–	P	P	–	–	37	–	–	R. H. Shaw, M.R.C.S.
Luddendenfoot	–	–	–	–	4	14	–	9	–	–	–	–	P	–	–	–	5	–	–	*T. Crowther, M.D.*
Marsden	–	–	2	1	2	21	–	5	–	–	–	–	*	–	–	–	–	–	–	A. G. Webster, M.R.C.S.
Meltham	–	–	2	–	2	5	–	4	–	–	–	–	–	–	–	–	–	–	–	T. A. Green, M.D.
Methley	–	–	–	–	11	6	–	3	–	–	1	–	P	–	–	–	–	–	–	G. W. Wigin, M.R.C.S.
Mexborough *m*	–	–	5	–	18	75	–	15	–	–	–	–	*	–	–	–	1	4	–	J. J. Huey, L.S.A.
Midgley *x*	–	–	–	–	5	4	–	1	–	–	–	–	–	–	–	–	–	–	–	*T. Crowther, M.D.*
Mirfield	–	–	4	1	11	24	–	11	–	–	2	–	P	*	–	–	19	–	–	T. B. Fairclough, L.R.C.P.,L.R.C.S.
Monk Bretton	–	–	3	–	1	25	–	3	–	–	–	–	*	*	–	–	7	2	–	J. Blackburn, M.R.C.S.
Morley Borough	–	–	31	8	30	76	–	55	–	–	5	–	E	P	–	–	2	8	–	S. T. Steele, L.R.C.P., D.P.H.
Mytholmroyd	–	–	2	1	3	7	–	5	–	–	–	–	–	–	–	–	2	4	–	J. H. Thompson, L.R.C.P., L.R.C.S.
Netherthong	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	R. H. Trotter, M.B.
New Mill	–	–	–	–	4	1	–	4	–	–	–	–	–	P	–	–	–	–	–	A. Thorp, M.R.C.S.
Normanton	–	–	3	–	6	69	–	27	–	–	2	–	P	*	–	–	–	–	–	W. S. Mackenzie, L.R.C.P., L.S.A.
Northowram *x m*	–	–	1	3	1	3	–	–	–	–	1	–	P	–	–	–	–	–	–	*E. G. Peck, L.R.C.P., M.A.*
Oakworth	–	–	–	2	6	59	–	4	–	–	–	–	*	–	–	–	20	–	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Ossett Borough	–	–	2	5	20	20	–	3	–	–	–	–	P	*	–	–	–	–	–	G. S. Greenwood, L.R.C.P., D.P.H.
Otley	–	–	2	1	13	23	–	12	–	–	1	–	P	P	–	2	13	7	–	W. E. Bennett, L.R.C.P., L.R.C.S.
Oxenhope	–	–	1	1	8	3	–	3	–	1	–	–	*	–	–	–	1	–	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Penistone *m*	–	–	2	–	2	1	–	–	–	–	–	–	–	–	–	–	–	–	–	J. A. Ross, M.B., C.M.
Pontefract Borough	–	–	3	–	12	13	–	26	–	–	–	–	*	*	–	–	2	–	–	A. Hillaby, L.R.C.P.
Pudsey Borough	–	–	8	–	14	79	–	21	–	–	–	–	E	*	–	2	73	4	–	W. L. Hunter, M.D , D.P.H.
Queensbury	–	–	–	1	19	7	–	8	–	–	2	–	P	–	–	–	5	–	–	E. G. Peck, L.R.C.P., M.A.
Ravensthorpe *m*	–	–	1	–	4	17	–	4	–	–	–	–	P	P	–	–	–	–	–	W. J. Richardson, M.D.
Rawdon	–	–	1	–	6	15	–	–	–	–	–	–	P	*	–	–	–	–	–	W. W. Chamberlain, M.B., C.M.
Rawmarsh	–	–	5	1	18	160	–	6	–	–	4	–	*	P	–	–	35	–	–	J. Picken, M.B., C.M.
Ripon City	–	–	6	–	3	59	–	9	–	–	–	–	E	–	–	1	19	3	–	G. R. Green, L.R.C.P.
Rishworth	–	–	–	–	1	5	–	–	–	–	–	–	–	–	–	–	–	–	–	W. B. Mercer, M.B., D.P.H.
Rotherham Borough	–	–	36	10	38	726	–	72	–	–	4	–	P	P	–	–	54	–	–	A. Robinson, M.D., D.P.H.
Rothwell	–	–	53	–	12	54	–	7	–	–	–	–	P	–	–	–	–	–	–	R. Stevenson, L.R.C.P., L.R.C.S.
Royston	–	–	–	1	3	11	–	2	–	–	–	–	P	P	–	–	11	2	–	R. B. Eskrigge, L.R.C.P.
Saddleworth	2	–	4	2	11	17	–	7	–	–	3	–	P	P	2	–	–	–	–	H. Ramsden, M.D.
Sandal Magna	–	–	3	–	2	126	–	11	–	–	1	–	E	*	–	–	46	2	–	A. S. Williamson, M.B , C.M.
Scammonden	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	A. G. Webster, M.R.C.S.
Selby *x*	–	–	19	1	8	12	–	3	–	–	–	–	*	*	–	–	–	–	–	J. Mitchell Wilson, M.D., D.P.H.
Shelf	–	–	–	–	–	2	–	3	–	–	–	–	5	–	–	–	–	–	–	W. R. Thompson, L.R.C.P.
Shelley	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	D. A. MacGregor, M.B., C.M.
Shepley	–	–	1	–	2	1	–	4	–	–	–	–	–	–	–	–	–	–	–	D. A. MacGregor, M.B., C.M.
Shipley	–	–	17	1	20	77	–	19	–	–	1	–	*	*	–	5	46	3	–	W. Foster, M.B., D.P.H.
Silsden	–	–	–	–	13	28	–	7	–	–	–	–	*	–	–	–	10	1	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Skelmanthorpe	–	–	–	–	2	–	–	6	–	–	–	–	P	*	–	–	–	–	–	D. A. MacGregor, M.B., C.M.
Skipton	–	–	2	1	33	253	–	11	–	–	1	–	*	*	–	–	69	–	–	F. E. Atkinson, L.R C.P., M.R.C.S.
Slaithwaite	–	–	–	–	2	12	–	2	–	–	2	–	*	–	–	–	–	–	–	A. G. Webster, M.R.C.S.
Soothill Nether	–	–	2	1	8	9	–	10	–	–	1	–	P	*	–	–	–	–	–	C. Clay, M.R.C.S.
Soothill Upper	–	–	–	–	3	12	–	7	–	1	1	–	P	P	–	–	–	–	–	R. Beattie, M.D.
South Crosland	–	–	1	–	–	8	–	1	–	–	–	–	E	–	–	–	–	–	–	T. Smailes, M.D., D.P.H.
Southowram	–	–	–	–	–	2	–	1	–	–	–	–	P	P	–	–	1	–	–	B. E. I. Edwards, M.B., C.M.
Sowerby	–	–	1	–	1	3	–	–	–	–	–	–	P	–	–	–	–	–	–	E. D. Wellburn, L.R.C.P., L.R.C.S.
Sowerby Bridge	–	–	5	–	1	50	–	17	–	–	1	–	P	P	–	–	5	3	–	E. D. Wellburn, L.R.C.P., L.R.C.S.
Soyland	–	–	–	3	1	8	–	–	–	–	–	–	P	–	–	–	–	–	–	J. Hoyle, M.B., C.M.
Springhead	–	–	3	–	–	31	–	2	–	–	–	–	P	–	–	–	–	–	–	E. Wakelam. L.R.C.P.
Stainland	–	–	–	3	4	12	–	11	–	–	2	–	P	–	–	–	–	–	–	*A. E. Woodcock, L.R.C.P.*
Stanley	–	–	7	–	6	29	–	15	–	–	1	–	P	*	–	–	20	–	–	J. J. Jackson, L.R.C.P.
Stocksbridge	–	–	54	–	6	88	–	1	–	–	–	–	E	P	–	16	40	–	–	W. M. Robertshaw, M B., C.M.
Swinton	–	–	23	1	15	149	–	6	–	–	1	–	P	*	–	–	–	–	–	E. English, M.D., D.P H.
Thornhill *m*	–	–	–	–	3	4	–	10	–	–	1	–	P	P	–	–	–	–	–	A. E. Sellers, L.R.C.P, M.R.C.S.
Thurlstone	–	–	–	–	–	3	–	–	–	–	–	–	–	P	–	–	–	–	–	A. C. J. Wilson, L.R.C.P., M.R.C.S.
Thurstonland *m*	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	*A. MacGregor, M.B., C.M.*
Tickhill *x*	–	–	5	–	2	6	–	–	–	–	–	–	–	–	–	–	1	–	–	J. Mitchell Wilson, M.D., D.P.H.
Todmorden Borough	–	–	7	2	32	443	–	36	–	–	–	–	P	P	–	–	171	26	–	C. W. Thorp, F.R.C.S., L.R.C.P.
Wakefield City *x*	1	–	100	1	17	293	1	83	–	–	3	–	*	*	1	–	170	–	–	W. S. Wade, L.R.C.P.
Warley *x*	1	–	–	–	–	4	–	5	–	–	–	–	–	–	1	–	2	2	–	*T. Crowther, M.D.*
Wath-on-Dearne	–	–	7	1	7	40	–	32	–	–	2	–	P	–	–	–	2	22	–	F. J. Burman, L.R.C.P., M.R.C.S.
Wheatley *x*	–	–	5	–	2	6	–	3	–	–	–	–	–	–	–	1	1	1	–	J. Mitchell Wilson, M.D., D.P.H.
Whitley Upper *m*	–	–	1	–	–	1	–	3	–	–	–	–	E	–	–	–	1	–	–	A. Tait, M.B.
Whitwood	–	–	5	1	1	10	–	–	–	–	2	–	E	–	–	–	10	–	–	G. B. Hillman, L.S.A.
Wombwell	–	–	6	4	8	84	–	15	–	–	1	–	P	*	–	–	44	4	–	J. N. Millar, M.B., C.M.
Worsborough	–	–	4	1	8	66	–	23	–	–	–	–	P	*	–	–	9	8	–	M. T. Sadler, M.D.
Yeadon	–	–	5	–	4	10	–	8	–	–	–	–	E	*	–	–	–	–	–	C. J. R. McLean, M.D., D.P.H.
Total of Urban Districts	4	–	1275	108	1017	6090	1	1322	–	22	92	–	?	?	4	113	1991	301	3	
II. RURAL.																				
Barnsley	–	–	1	–	1	9	–	5	–	–	–	–	P	*	–	–	6	1	–	*M. T. Sadler, M.D.*
Bishopthorpe *m*	–	–	5	–	1	2	–	3	–	–	–	–	P	–	–	2	–	1	–	A. Raimes, M.D.
Bowland	–	–	–	–	1	12	–	3	–	–	1	–	P	*	–	–	–	–	–	J. J. Smithies, L.F.P.S.G., L.R.C.P.
Doncaster *x*	2	–	21	–	17	60	–	22	–	–	3	–	*	*	2	1	21	5	–	J. Mitchell Wilson, M.D., D.P.H.
Goole *x*	–	–	4	3	3	27	–	6	–	–	–	–	–	*	–	–	1	2	–	J. Mitchell Wilson, M.D., D.P.H.
Great Ouseburn	–	–	2	1	4	18	–	3	–	–	4	–	E	E	–	1	–	–	–	C. E. Lownds, L.R.C.P.
Halifax	–	–	1	–	5	13	–	1	–	–	–	–	P	–	–	1	8	1	–	F. A. Storr, D.P.H.
Hemsworth	–	–	6	2	7	166	–	29	–	–	2	–	P	P	–	3	159	16	–	G. E. Coleman, L.R.C.P., M.R.C.S.
Hunslet	–	–	25	1	4	15	–	8	–	–	2	–	E	*	–	–	–	–	–	J. Buck, L.R.C.P.
Keighley	–	–	4	–	8	119	–	4	–	–	–	–	*	–	–	–	65	3	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Kiveton Park	–	–	2	–	3	110	–	5	–	–	–	–	–	*	–	–	–	–	–	C. Wills, M.R.C.S.
Knaresborough	–	–	98	3	5	20	–	11	–	1	1	–	E	P	–	–	–	–	–	W. J. Forbes, M.B.
Leeds	–	–	2	1	–	24	–	3	–	–	–	–	–	P	–	–	2	–	–	B. Baskett, M.B.
Pateley Bridge	–	–	3	–	10	–	–	1	–	–	–	–	92	–	–	–	–	–	–	G. Lumsden, M.B., C.M.
Penistone *m*	–	–	1	–	2	27	–	2	–	–	–	–	P	–	–	–	–	–	–	F. McDonald Swallow, LRCP., LRCS.
Pontefract	–	–	2	–	–	24	–	13	–	–	1	–	P	P	–	–	–	–	–	T. Percival, M.R.C.S.
Ripon	–	–	2	–	5	7	–	5	–	–	–	–	P	*	–	–	–	–	–	T. Collier, M.R.C.S.
Rotherham	–	–	34	–	18	189	–	21	–	–	1	–	P	P	–	11	102	13	–	L. J. Weatherbe, M.B., C.M.
Sedbergh	–	–	–	–	1	9	–	–	–	–	–	–	–	–	–	–	–	–	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Selby *x*	–	–	1	–	4	29	–	8	–	–	–	–	–	–	–	–	–	–	–	J. Mitchell Wilson, M.D., D.P.H.
Settle	–	–	2	1	10	72	–	6	–	–	1	–	–	*	–	–	17	–	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Skipton	–	–	13	1	36	181	–	13	–	–	1	–	*	*	–	1	37	1	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Tadcaster *x*	–	–	10	1	21	29	–	25	–	1	2	–	*	*	–	–	19	10	–	J. Mitchell Wilson. M.D., D.P.H.
Thorne	–	–	1	–	2	35	–	3	–	–	–	–	P	*	–	–	6	–	–	H. W. Arbuckle, M.D., D.P.H.
Todmorden	–	–	1	–	14	11	–	11	–	1	–	–	–	*	–	–	3	9	–	J. Lawson, M.B., B.A.
Wakefield	–	–	10	2	19	172	–	21	–	1	2	–	P	*	–	–	139	3	–	J. J. Jackson, L.R.C.P.
Wetherby	–	–	24	–	4	28	–	44	–	–	–	–	P	P	–	–	9	–	–	J. A. Hargreaves, M.B.
Wharfedale N. *m*	–	–	2	–	3	13	–	1	–	–	–	–	P	*	–	–	–	–	–	R. E. Williamson, M.B.
Wharfedale S. *m*	–	–	2	–	4	21	–	1	–	–	1	–	P	–	–	–	–	–	–	W. H. Cheetham, M.D., D.P.H.
Wortley	–	–	237	6	27	397	–	25	–	–	1	–	E	P	–	1	198	–	–	A. Anderson, M.B., D.P.H.
Total of Rural Districts	2	–	516	22	239	1839	–	303	–	4	23	–	?	?	2	21	792	65	–	
Grand Total for the Administrative County	6	–	1791	130	1256	7929	1	1625	–	26	115	–	?	?	6	134	2783	366	3	

(*x*) Table C not furnished. (*m*) Report not printed. E Epidemic recorded. P Prevalence recorded.

* (Cols. 16 and 17)—Cases have occurred.

Denby & Cumberworth	–	–	–	–	1	3	–	–	–	–	–	–	*	–	–	–	–	–	–	J. Jackson, F R.C.S., L.R.C.P.
Denholme	–	–	3	–	1	16	–	–	–	–	–	–	P	*	–	–	2	1	–	W. F. Watts, M.R.C.S.
Dewsbury Borough *x*	–	–	10	3	13	58	–	12	–	1	3	–	*	*	–	–	4	–	–	H. Knowles, L.R.C.P.
Dodworth *x*	–	–	–	–	1	8	–	1	–	–	–	–	*	*	–	8	48	16	1	J. Mitchell Wilson, M.D., D P.H.
Doncaster Borough *x*	–	–	29	1	32	70	–	19	–	1	1	–	*	*	–	–	–	–	–	R. Forsyth, M.D.
Drighlington	–	–	2	–	4	1	–	15	–	–	1	–	E	–	–	–	–	3	–	R. N. Denning, M.D., B.A.
Elland	–	–	1	4	10	59	–	19	–	–	2	–	–	P	–	–	–	–	–	R. H. Townend, M.B.
Emley	–	–	–	–	2	1	–	1	–	–	1	–	–	–	–	–	–	–	–	W. H. Thorman, M.R.C.S.
Farnley Tyas *x m* ..	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	3	48	–	–	J. R. Lambert, M.B.
Farsley	–	–	3	–	2	62	–	5	–	–	–	–	P	P	–	–	–	–	–	A. Buncle, M.B., C.M.
Featherstone	–	–	20	2	17	90	–	44	–	–	1	–	–	*	–	–	–	–	–	J. A. Smith, M.R.C.S.
Flockton	–	–	2	–	6	2	–	–	–	–	–	–	–	–	–	–	–	–	–	J. B. Brereton, L.R.C.P., L.R.C.S.
Gildersome *m* ..	–	–	–	–	8	4	–	13	–	–	1	–	P	P	–	–	6	–	–	A. G. Webster, M.R.C.S.
Golcar	–	–	4	2	11	70	–	9	–	3	–	–	E	P	–	–	–	–	–	H. O. Steele, M.R.C.S.
Gomersal *m*	–	–	–	–	3	17	–	9	–	–	–	–	*	*	–	7	76	22	–	J. Mitchell Wilson, M.D., D.P.H.
Goole *x*	–	–	28	5	10	100	–	34	–	–	3	–	P	*	–	–	–	–	–	J.F.Cheesewright, L.R.C.P., M.R.C.S.
Greasborough	–	–	2	–	1	17	–	1	–	–	–	–	P	–	–	–	–	–	–	J. Brown, L.R.C.P., L.R.C.S.
Greetland *m*	–	–	–	1	6	16	–	4	–	–	–	–	P	–	–	–	1	–	–	W. H. Cheetham, M.D., D.P.H.
Guiseley *m*	–	–	5	–	1	11	–	1	–	–	–	–	–	–	–	–	–	–	–	D. A. MacGregor, M.B.. C.M.
Gunthwaite	–	–	–	–	–	–	–	–	–	–	–	–	E	–	–	–	–	–	–	A. W. Scott, M.D.
Handsworth	–	–	52	1	22	169	–	4	–	–	3	–	P	–	–	–	22	6	1	W. J. C. Ward, L.R.C.P., M.R.C.S.
Harrogate Borough *m*	–	–	153	–	4	39	–	11	–	–	–	–	*	–	–	1	9	3	–	F. E. Atkinson, L.R.C.P., M.R.C.S.
Haworth	–	–	12	5	10	21	–	8	–	1	–	–	P	*	–	–	14	6	–	J. Lawson, M.B., B.A.
Hebden Bridge ..	–	–	2	–	10	31	–	8	–	–	–	–	*	*	–	–	–	–	–	H. T. Broughton, M.R.C.S.
Heckmondwike ..	–	–	2	–	6	26	–	9	–	–	–	–	P	*	–	–	8	–	–	R. Davidson, M.D.
Hipperholme	–	–	–	–	2	13	–	3	–	2	–	–	–	–	–	–	–	–	–	R. H. Trotter, M.B.
Holme *m*	–	–	–	–	–	–	–	–	–	–	–	–	E	E	–	–	–	–	–	R. H. Trotter, M.B.
Holmfirth	–	–	1	3	9	14	–	7	–	–	1	–	–	P	–	–	–	–	–	R. H. Trotter, M.B.
Honley	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	–	–	B. Kemp, M.R.C.S.
Horbury	–	–	1	1	9	22	–	5	–	–	1	–	P	*	–	–	–	–	–	H. Bailey, M.R.C.S.
Horsforth	–	–	22	1	20	71	–	6	–	4	–	–	P	P	–	–	13	21	–	W. L. Allott, M.R.C.S.
Hoyland Nether *x* ..	–	–	6	4	9	131	–	36	–	–	–	–	–	–	–	–	–	–	–	F. McDonald Swallow, L.R.C.P.
Hoylandswaine ..	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	*G. H Moorhead, L.R.C.P.*
Hunsworth *x*	–	–	6	–	4	2	–	–	–	–	–	–	32	24	–	8	37	–	2	T. Johnstone, M.D.
Ilkley	–	–	17	–	6	38	–	3	–	–	–	–	P	P	–	44	135	31	–	W. Scatterty, M.D.
Keighley Borough ..	–	–	216	–	69	311	–	57	–	–	4	–	P	*	–	1	–	2	–	W. H. Thorman, M.R.C.S.
Kirkburton *m* ..	–	–	5	–	6	15	–	4	–	1	1	–	P	*	–	2	–	1	–	W. T. Smith, M.R.C.S.
Kirkheaton *m* ..	–	–	2	–	1	2	–	5	–	–	–	–	*	–	–	–	–	–	–	I. D. Mackay, M.B., C.M.
Knaresborough ..	–	–	24	–	2	14	–	2	–	–	–	–	P	*	–	–	–	–	–	T. Percival, M.R.C.S.
Knottingley	–	–	–	–	6	12	–	9	–	–	–	–	P		–	–	–	–	–	